



US Army Corps
of Engineers®

Hydrology
for
Large Group
Reservoir
Evaluation

19990128 003

November 1998
IWR Report 98-R-4

DISTRIBUTION STATEMENT A

Approved for public release;
Distribution Unlimited

**U.S. Army Institute for Water Resources
Technical Analysis and Research Division**

The U.S. Army Corps of Engineers Institute for Water Resources (IWR) is part of the Water Resources Support Center in Alexandria, VA. The Institute was created in 1969 to analyze and anticipate changing water resources management conditions and to develop planning methods and analytical tools to address economic, social, institutional and environmental needs in waters resources planning and policy. Since its inception, IWR has been a leader in the development of tools and strategies for planning and executing the Corps water resources program.

The Technical Analysis and Research Division is one of four divisions at IWR. It supports the Corps Headquarters, Civil Works Directorate by developing evaluation methodologies, analytical models, and public involvement processes to help plan and manage Corps water resources projects. It also supports the Research and Development Directorate by managing one or more research programs. The division's missions include:

- Decision Support Technologies Research Program
- National Level Technical Assistance
- Training and Other Technology Transfer Activities
- Risk Analysis Research Program
- National and Special Studies
- Field Level Technical Assistance

The Decision Support Technologies Research Program includes research and development activities for improving methods for managing and conducting Corps planning and operations studies. Research activities involve integration of environmental, engineering, and economic and social sciences to develop decision frameworks and methods that enable the Corps to make sound decisions about water resources investments. Research outputs range from methods for facilitating stakeholder involvement in water resources planning to mathematical models and evaluation frameworks for formulating, for example, ecosystem restoration and flood damage reduction projects. Research study areas include:

- Economic Evaluation
- Watershed Management
- Collaborative Decision Processes
- Performance Measures
- Cost Effectiveness and Incremental Cost Analyses
- Budget Decision Making
- Integrated System-wide Problem Solving

For further information, call either:

*Mr. Michael R. Krouse
Chief, Technical Analysis and Research Division
703-428-6217*

*Mr. Kyle E. Schilling
Director, Institute for Water Resources
703-428-8015*

*Department of the Army, Corps of Engineers
Water Resources Support Center
7701 Telegraph Road, Casey Building
Alexandria, VA 22315-3868*

Many reports are available on-line at IWR's web site: www.wrsc.usace.army.mil/iwr; or they may be ordered at the above address; or by contacting Arlene Nurthen, IWR Publications, by fax at (703) 428-8435, or by e-mail at "arlene.j.nurthen@usace.army.mil".

HANDBOOK FOR THE LARGE GROUP RESPONSE EXERCISE

Institute for Water Resources
Water Resources Support Center
U.S. Army Corps of Engineers
7701 Telegraph Road
Alexandria, Virginia 22315-3868

Prepared by

Kenneth D. Orth
Institute for Water Resources
and
Carol A. Sanders
Office of Public Affairs, Headquarters

November 1998

IWR Report 98-R-4

DEMO QUALITY INSPECTED

Blank

Preceding Pages

FOREWARD

Our public involvement program for the Everglades restoration study began with ten public workshops. Our purpose was to engage the public's imagination in looking forward. We were at the beginning of the study and needed their help, their ideas, their guidance. What did they think were the significant resources in their region? What did they believe were the problems and opportunities in south Florida? Could they tell us what successful restoration would look like?

The local press made sure everyone knew our meetings were coming, and we expected several hundred people at any given workshop. We knew they would have strong opinions, and they would not be unanimous. We would hear from agriculture, the urban east coast, and environmentalists. And many people would be emotional, already feeling threatened and angry.

We quickly realized that a traditional public hearing format wouldn't work in this situation. We needed an approach that would both provide us useful information and minimize confrontations that could derail the meeting. Whatever we did had to be successful with very large groups. The logistical problems and costs of ten sessions encouraged us to find a modest, friendly approach that would minimize complications. Out of these needs came the large group response exercise.

At the first workshop, we were amazed when people filled-in their response sheets and lined up for the wall walk. At the second workshop, responses often turned hostile, but people still participated. At the third and fourth workshops, many people were too emotional and the exercises were scrapped. But by the fifth workshop, and through the remaining sessions, various public interests realized that we were seriously trying to get their input, and participation in the large group response exercise was the way to get their concerns and ideas into our study process. And when, during the final workshop, several members of the audience suggested that we skip the large group response exercise and move directly to hearing public comments, others objected:

"At the other meetings, the Army Corps took control and conducted the meeting in a very professional and systematic type method so that all of the aspects of the study were heard. Why don't we do the same thing here?"

After debate about the value of the exercise, the meeting proceeded as scheduled with the participants' strong support. In the Everglades reconnaissance study, the large group response exercise provided us with a basis, informed by public views, for defining our study's initial objectives and constraints. It was different and engaging, and it worked.



Stu Appelbaum
Chief, Ecosystem Restoration Section
Jacksonville District, U.S. Army Corps of Engineers

ACKNOWLEDGMENTS

This handbook was prepared as part of the Civil Works Decision Support Technologies Research Program. The program is sponsored by the Headquarters, U.S. Army Corps of Engineers. The Headquarters' Civil Works Program Monitors are Mr. Robert Daniel, Planning Division, Mr. Jerry Foster, Engineering Division, and Mr. Harold Tohlen, Operations, Construction and Readiness Division; Mr. David Mathis is the Headquarters Research and Development Program Monitor. Mr. Michael Krouse of the Corps' Institute for Water Resources is the Program Manager. The Program's field review group includes: Mr. Michael Burnham, Hydrologic Engineering Center, Mr. William Fickel, Fort Worth District, Mr. Martin Hudson, Rock Island District, Mr. Matthew Laws, Charleston District, and Ms. Pat Obradovich, Portland District.

We appreciate the dedication and support of the many people who have worked with us on a large group response exercise, especially those who sponsored the exercises reported in our three case studies:

Everglades Public Workshops - Mr. Stu Appelbaum and Ms. Jacquelyn Griffin of the Jacksonville District, U.S. Army Corps of Engineers; Ms. Cathy Vogel (now with the firm Parvese, Garner, Haverfield, Dapton, Harrison and Jenson, L.L.P.), Ms. Kathy Malone and Ms. Kathy Copeland of the South Florida Water Management District; Ms. Pat Tolle, formerly of Everglades National Park; and the members of the reconnaissance phase team working on the Central and Southern Florida Project Comprehensive Review Study ("the world's most dangerous study team").

National Watershed Coalition Conference - Mr. John Peterson, Executive Director, Mr. Jim Fisher, Program Specialist, Mr. Billy Wilson, past Chairman, Ms. Kay Whitlock, past Secretary-Treasurer, and other officers and members of the National Watershed Coalition.

Watershed '96 - Dr. G. Edward Dickey, former Planning Chief, Civil Works Directorate of the Corps' Headquarters, Mr. Bill Hansen of the Corps' Institute for Water Resources, Ms. Janet Pawlukiewicz of the U.S. Environmental Protection Agency, and the other members of the conference Planning Committee.

Comments on a draft of this handbook were provided by Mr. Stu Appelbaum, Mr. Bruce Carlson of the Corps' St. Paul District, Ms. Sue Devries of the Corps' Headquarters, Dr. Mark Dunning of the Corps' Institute for Water Resources, Mr. Bill Hansen, Mr. Ted Kanamine of the Corps' Headquarters, and Mr. David Loss of the Corps' St. Paul District..

Mr. Michael Krouse is the Chief, Technical Analysis and Research Division, and Mr. Kyle Schilling is the Director of the Institute for Water Resources. Colonel Robert N. Mirelson is the Chief of the Office of Public Affairs.

TABLE OF CONTENTS

FOREWARD	i
ACKNOWLEDGMENTS	iii
TABLE OF CONTENTS	v
SUMMARY, LARGE GROUP RESPONSE EXERCISE	vii
1. INTRODUCTION	
What Is the Large Group Response Exercise?	1
Why Use It?	1
When and Where to Use It?	3
Three Case Studies	4
Organization of This Handbook	5
2. GETTING READY FOR THE EXERCISE	
Introduction	7
Scope the Exercise	7
Identify Manager	9
Identify Moderator	9
Identify Support Team	10
Identify Participants	11
Develop Schedule	12
Identify and Visit Site	13
Prepare Questions	15
Prepare Response Sheet	17
Prepare Presentation	18
Assemble Other Materials and Equipment	19
Ready to Go	21
3. THE EXERCISE: STEP-BY-STEP	
Introduction	23
Set-Up	23
Step 1 - Questions and Responses	24
Step 2 - Most Important Responses	25
Step 3 - Wall Walk	25
Step 4 - Summary, Report and Discussion	27
Clean-Up	29

4. USING THE EXERCISE RESULTS	
Introduction	31
Analysis	31
Documentation	31
Use	32
5. OBSERVATIONS	
Introduction	33
Time	33
Cost	33
Participation	34
Advice	34
A Request... ..	35
REFERENCES	37
APPENDIX A1 - Everglades Public Workshops, "Everybody Gets to Write on the Walls: A Large Group Response Technique"	A1
APPENDIX A2 - Everglades Public Workshops, "Transcript of Public Workshop Meeting, December 15, 1993, Fort Lauderdale, Florida" [excerpt]	A31
APPENDIX A3 - Everglades Public Workshops, "Public Concerns" [Reconnaissance Report excerpt]	A41
APPENDIX B - "Using the Large Group Response Technique at the Fourth National Watershed Coalition Conference"	B1
APPENDIX C - "Using the Large Group Response Exercise at Watershed '96"	C1
APPENDIX D - Sample Questions	D1

TABLES AND FIGURE

Table 1 - Large Group Response Exercises	6
Table 2 - Checklist	8
Figure 1 - Typical Room Arrangement	14
Table 3 - Questions From Three Case Studies	16

SUMMARY

LARGE GROUP RESPONSE EXERCISE

The large group response exercise is a technique for public involvement. It is a step-by-step way to quickly elicit, display and summarize responses of a large group of people to a set of questions. The exercise has been successfully used in public meetings and conferences with groups of up to several hundred people.

Step-By-Step Process

The heart of the large group response exercise is a set of questions related to the purpose or theme of the meeting. Typically, three questions are used. The questions should be carefully framed before the exercise. Questions from a recent exercise were:

1. What are the significant resources in the study area?
2. What are the problems and opportunities in the study area ecosystem?
3. How would you recognize successful ecosystem restoration in the study area?

Other pre-exercise activities include: identifying a manager, moderator, support team and participants; developing a schedule; identifying and visiting the site; preparing a response sheet for recording answers; preparing a moderator's script and visual aids for the exercise presentation; and assembling other materials and supplies.

Several set-up tasks are required just before conducting an exercise. First, a response form and pencil or pen are placed at each participant's seating area. Second, banks of flip charts on stands are assembled and stationed around the meeting room, with one bank of charts dedicated to each of the selected questions. Each bank is usually three or more charts wide, and forms a "wall" of paper. Several marking pens and a collection box (for completed response sheets) are placed at each wall.

Once set-up, the activities involved in conducting a large group response exercise are:

Step 1 - Questions and Responses. The moderator introduces the exercise, explaining its purpose and the procedure to be followed. The moderator explains the first question, and then allows participants three minutes to write all of their responses in the first block of the response sheet. This question-and-response format is repeated for the remaining questions.

Step 2 - Most Important Responses. The moderator provides participants with a final three minutes to individually review their responses, and to select and mark their "most important" response to each question.

Step 3 - Wall Walk. Participants visit each of the flip chart walls of paper to display their most important responses. Each wall is attended by a member of the support team who helps participants, moves completed sheets of paper to nearby walls, and summarizes responses. When all of the participants have displayed their most important responses, the moderator visits each wall, reviews the responses with the support team, and notes a few key points that summarize the results.

Step 4 - Summary, Report and Discussion . When the participants have reassembled, the moderator presents the summary of the responses to each of the questions. Participants may wish to discuss the results.

Further analysis and use of responses after the exercise can range from simply reading the response sheets to be fully informed about participants' ideas, to key word and content analyses of the responses.

Resources

The four exercise steps conducted during a meeting can be completed in about 45-90 minutes.

Materials and supplies needed to conduct a large group response exercise usually include: flip charts (pads of paper and stands), markers, tape (or pins), response sheets, pencils or pens, and signs. Other materials can be used to fit special exercise needs. The exercise meeting room should have writing surfaces (tables, or participants' pads, books, etc.), wall space suitable for the display of completed flip chart pages, and adequate space for circulation during the wall walk.

Benefits

The large group response technique is:

- Quick. An exercise can be completed and results are known in about one hour.
- Inexpensive. Costs can be limited to flip charts and work sheets; expenses for separate break-out rooms and small group facilitators and recorders are minimized or eliminated.
- Easy. The steps are straightforward; equipment and materials are familiar, readily available, and not readily flawed.
- Participatory. The exercise gives all participants an equal chance to be heard. More people may participate in the exercise than in a traditional hearing-type meeting.
- Documented. Results are immediately self-recorded on response sheets, flip chart pages, and summary notes.

1. INTRODUCTION

What Is The Large Group Response Exercise?

The large group response exercise is a technique for public involvement. It is a step-by-step way to quickly elicit, display and summarize responses of a large group of people to a set of questions. The exercise has been successfully used in public meetings and conferences with groups of up to several hundred people. This handbook provides instructions for conducting an exercise.

The large group response exercise is conducted in four steps:

Step 1 - Questions and responses, when participants write responses to a set of questions.

Step 2 - Most important responses, when participants select their most important response to each question.

Step 3 - Wall walk, when participants display their "most important" responses.

Step 4 - Summary, report and discussion, when participants consider the results on each question.

The exercise process was developed during the initial work on the Corps' Central and Southern Florida Comprehensive Review Study for restoration of the Florida Everglades. The process was adapted in part from two other meeting techniques with which the Review Study team members had experience. The nominal group technique (Delbecq et al 1986) was the basis for the opening steps of posing a question and silent generation of ideas by individuals. The wall walk display process was drawn from practices developed by the Corps' Fusion Center, where a variety of large display techniques were used to exchange and discuss ideas within and among small groups (Devries 1994).

Why Use It?

If you're thinking about conducting a meeting involving a large number of people, and you want to know what they think about some specific topics, then consider the following about the large group response exercise:

The exercise allows you to take advantage of an audience's collected years of knowledge and experience - usually

People appreciate being asked.

measured in centuries - for about an hour to focus on a well-defined set of questions. There are few such opportunities when you can focus so much thought from so many people in such a quick and simple manner.

As its name is intended to convey, the large group response exercise maintains a large group as a whole group. There is no need to break into smaller groups, and the exercise will, therefore, usually yield savings over small group approaches. You'll save dollar costs by reducing the numbers of staff involved and rooms needed for the meeting. You'll also save the time needed for making many small group reports and reaching consensus among many small groups.

The steps in conducting a large group response exercise are straightforward. The equipment and material used are familiar, low-tech, readily available, and not easily flawed. People can conduct and participate in an exercise with little instruction. Within an hour or so, an exercise can be complete.

Compared to the traditional meeting approach with open comment and discussion, the large group response exercise will not create an adversarial situation among participants. The exercise will give you results that are structured and focused on what you want to know rather than only what people want to tell you. It is, however, important to provide a period in the meeting for open comment and discussion because people usually want an opportunity to discuss their concerns and ask questions. The exercise results may bring some structure to general public comments, and will give you at least a sense of a broader slice of participants' views over what a more traditional public meeting would provide.

The openness and visibility of the exercise process builds credibility among participants. Everyone is given the same instructions and accomplishes the same task at the same time. While the moderator controls the meeting process, they do not control the results. The results are neither hidden nor changed, and are immediately plain for all to see at the same time.

At the National Watershed Coalition Conference, the large group response exercise was used to focus:

- 60 centuries of participants' experience for
 - 60 minutes on
 - 3 questions.
-

The results of a large group response exercise are immediately self-recorded during the meeting in the response sheets, flip chart pages, and summary notes. People will leave knowing "This is how I think, and this is how the other participants' think" about the meeting topics. Follow-up reporting can be as simple as assembling the materials from the meeting, or more complex based on analyses of results.

The large group response exercise is not an end in itself, but is intended to produce a product - a list of results - that you can use. The process may be fun; its purpose is serious.

When and Where to Use It?

You can use the large group response exercise as a meeting technique to elicit specific information from a large group of people.

A traditional public hearing format, with opportunities for people to make oral statements and engage in questions and answers with the meeting's sponsor, will provide you with information. But a traditional format is not necessarily intended to produce any specific

This is a process to "ask and listen", NOT to "tell and react".

information even if it otherwise provides a very useful way for people to express their views on any number of subjects. The large group response exercise will help focus public input through people's responses to specific questions. The exercise should greatly improve your chances of quickly getting a useful product - people's views on specific topics - out of a meeting.

The type of information you can develop will vary among situations. In the watershed and water resources planning business, the large group response exercise can be an effective tool for discovering the public's views during at least three stages of planning:

- When you're identifying the range of **problems and opportunities** that may be investigated.
- When you're developing ideas about **alternative plans and projects** that could be implemented.
- When you're evaluating the **benefits and costs**, the pros and cons, and the outputs and impacts of alternatives.

The exercise is also useful when you expect a large number of people to attend a meeting. Why may a lot of people show up? Perhaps the subject matter is controversial, or the meeting is an infrequent or unique event concerning a popular topic; it really doesn't matter. What matters is that the expected audience will be large. How big is large? There's no magic number for using the large group response exercise, but a good rule of thumb is that 50 or more people constitutes a large group. The exercise has worked satisfactorily with smaller groups, but interaction within a small group seems to lack the dramatic momentum that the exercise can bring to a large number of people. As the name suggests, this technique works for a large group of people, and it maintains the integrity and dynamics of a single large group. Experience to date suggests - the more people, the better.

While the large group response exercise can help you conduct a productive and successful meeting, it should usually not be the sole event in any meeting. Past exercises have been integral parts of other meetings, including professional conferences and public meetings. During the Everglades public meetings, the exercise was conducted as the second in a four-part meeting

which included a traditional closing session for public statements (see Appendix A1 for a description of the meeting agenda). In most cases, while you can expect that people will participate in the exercise, some participants will expect an opportunity to address the group and say what they came to say. Therefore, an exercise should be followed with a period for general public comment and discussion if it is part of a public meeting.

Three Case Studies

This handbook distills the authors' experiences in conducting the large group response exercise at primarily three sets of meetings: the U.S. Army Corps of Engineers' early public workshops on restoration of the Florida Everglades, the National Watershed Coalition's Fourth National Watershed Conference, and the Watershed '96 conference. If you're interested in the lessons drawn from these experiences, read the next three chapters of this handbook. If you want to know how the exercises really happened, read the appendixes to learn more about:

- *Everglades Public Workshops.* In December 1994, the Corps' Jacksonville District conducted ten public workshops across south Florida. The workshops were the first of three rounds of public meetings conducted during the initial reconnaissance study of the Central and Southern Florida Project Comprehensive Review Study. The study focused on restoration of the Everglades ecosystem, maintaining public water supplies, and related water resource needs. The large group response exercise was used in seven of the ten workshops to identify public views about significant resources, problems and opportunities, and successful restoration. The Everglades workshop exercises are described in Appendixes A1, A2 and A3 (Everman 1993, Sanders and Orth 1994, and USACE 1994).

- *National Watershed Coalition Conference.* The Fourth National Watershed Conference was held in Charleston, West Virginia in May 1995. Its theme was "Opening the Toolbox: Strategies for Successful Watershed Management". About 440 people attended, representing local, State, Tribal, regional and Federal watershed, floodplain and natural resources program managers and project sponsors. The Coalition included a large group response exercise in the conference to provide direction from conference participants for finding common ground for an integrated national watershed management program. The Coalition conference exercise is described in Appendix B (Orth 1995).

- *Watershed '96.* With the theme of "Moving Ahead Together"; Watershed '96 was held in Baltimore, Maryland, in June 1996. Its purpose was to share success stories, discuss challenges, and learn from others' experiences in the business of watershed planning and management. The conference attracted about 1,800 people from Federal, State and local agencies, private sector interests, non-profit interest groups, and Native American tribes. A large group response exercise was included in the conference's plenary sessions primarily to demonstrate how the exercise works. The Watershed '96 exercise is described in Appendix C (Orth 1996).

Table 1 profiles these and other meetings where the large group response exercise has been used.

Organization of This Handbook

This handbook is organized in five chapters and appendixes. This first chapter defines what the large group response exercise is, and why, when and where you may want to use it. Chapter 2 explains what you should think through and do to prepare for an exercise, including scoping the exercise and the people, schedules, site, questions, and material that make up an exercise. Chapter 3 explains the activities of the four exercise steps. Chapter 4 describes what can be done with the results from an exercise. The final chapter presents some general points and advice drawn from the collected experience with several exercises.

The appendixes document the process and results of the three case study exercises. Appendix A1 is a paper about the first exercises conducted during the Everglades public workshops. Appendix A2 is an extract from the transcript of the Fort Lauderdale workshop covering the opening of the meeting and showing how an exercise actually proceeded. Appendix A3 is an extract from the Everglades Reconnaissance Report showing how the exercise results were presented in a report. Appendix B is a paper about the exercise conducted for the National Watershed Coalition's fourth conference, and Appendix C is a paper about the Watershed '96 conference exercise. Appendix D is a composite list of sample questions developed during the planning of several exercises.

Table 1 - Large Group Response Exercises

MEETING	SPONSOR	DATE	ESTIMATED NUMBER OF EXERCISE PARTICIPANTS
Central and Southern Florida Project Comprehensive Review Study, 7 locations in south Florida	Jacksonville District	7 exercises, 6-20 December 1993	45 minimum 400 maximum 1,280 total over 7 exercises
4th National Watershed Conference, Charleston WV	National Watershed Coalition	24 May 1995	300
54th Meeting of the Chief of Engineers Environmental Advisory Board, Reston VA	Corps Headquarters	13 March 1996	70
Watershed '96, Baltimore MD	Water Environment Federation, USEPA, et al	11-12 June 1996	1,000
Conference/Workshop on Small Watershed Project Operation, Maintenance and Replacement Concerns, Oklahoma City OK	National Watershed Coalition	22-25 September 1996	300
Policy and Planning Conference, Baltimore MD	Corps Headquarters	3 June 1997	70
Restoration Forum for River Corridors and Wetlands, Springfield VA	USEPA Headquarters	23 September 1997	150
Continuing Authorities/Environmental Restoration Programs National Program Review, Portland OR	Corps Headquarters	6-8 April 1998	100

2. GETTING READY FOR THE EXERCISE

Introduction

A successful large group response exercise requires a modest level of thoughtful planning. This chapter explains what you should think through and do to prepare for an exercise. It begins by posing some initial **scoping** questions. Then it describes the following parts which, when assembled, make up an exercise:

- **People**, including the exercise manager, moderator, support team, and participants;
- **Schedule and site**;
- **Exercise questions**, which are the heart of this approach; and,
- **Materials**, including a response sheet, presentation, and other materials and equipment.

The checklist in Table 2 can help you prepare to be ready to go.

Getting Ready Checklist:

- ☐ scope exercise
- ☐ manager
- ☐ moderator
- ☐ support team
- ☐ participants
- ☐ schedule
- ☐ site
- ☐ questions
- ☐ response sheet
- ☐ presentation
- ☐ other materials and equipment

READY TO GO!

Scope the Exercise

Once you've decided to use the large group response exercise, plan how it will be carried out in the context of the overall meeting. Several key assumptions and decisions that will guide the exercise's development should be fleshed out in early planning, including:

- What's the **purpose** of the exercise? Is it to identify problems and opportunities; or to identify alternative solutions; or to evaluate different solutions; or for some other reason? What does the meeting's sponsor want to get out of the exercise? The purpose will determine the questions to be used.
- How much **time** do you have to prepare for the meeting? It often takes more time than you expect to arrange for needed equipment, line up the right people, and, most importantly, mold a useful set of questions. A good rule of thumb is to allow two months to plan an exercise. You can, of course, prepare in much less time if necessary.
- **How many people** do you expect to participate in the exercise? This estimate has

Table 2 - Checklist

EQUIPMENT AND SUPPLIES

- ☐ flip charts - full pads of paper mounted on an easel stands
minimum = 1 flip chart for each question
recommended = 1 flip chart for every 100 people for each question
- ☐ signs
1 for each question, located at each set of flip charts
- ☐ collection boxes (optional)
1 for each set of flip charts
- ☐ markers
minimum = 1 for each flip chart
recommended = 3 for each flip chart
- ☐ tape
minimum = 1 roll
recommended = 1 roll for each set of flip charts
- ☐ pencils or pens
1 for each participant

MATERIALS

- ☐ questions
minimum = 1 question
recommended = 3 questions
- ☐ response sheets
1 for each participant
- ☐ moderator's presentation - script and visuals (optional). Additional equipment, such as a projector and an extension cord, may be needed depending on the selected method of presentation.

ROOM CHARACTERISTICS AND OTHER CONSIDERATIONS

- ☐ seating - Are there enough seats for the expected number of participants?
- ☐ writing surfaces - Is there an adequate writing surface at each participant's seat?
- ☐ flip chart areas - Are there adequate areas to locate sets of flip charts?
- ☐ movement space - Is there adequate space for safe and easy movement around the room?
- ☐ tape on walls - Does the site allow you to tape paper to the room walls? Will tape actually hold on the wall surface?
- ☐ environmental controls - Are the adequate controls for lighting, temperature and noise?
- ☐ public address - Will you need a public address system?
- ☐ refreshments - Will you serve refreshments during the wall walk? If so, additional equipment and supplies will be needed.

direct implications for the amounts of materials needed, the size of the meeting room and the wall walk display area, the time needed to display the “most important” responses, and the time needed to summarize responses.

- **Where** will the exercise be conducted?
- How much **time** will be allotted to the exercise? Will it occupy the entire meeting agenda, or will it be only one of a number of meeting activities?
- How many **questions**, and what general types of questions, should be used?
- Who are good candidates for **moderator**?
- Who will be on the **support team** to help set-up the exercise, monitor the wall walk and summarize the responses?
- Who will identify and select the site, prepare a presentation, secure the equipment and materials, and otherwise **manage** the exercise?
- Will the participants be given additional **feedback** on the results after the meeting? If so, how and when?
- How will any exercise expenses be **funded**?

Identify Manager

The large group response exercise will not run itself. Someone needs to be in charge of recruiting people for the exercise tasks, making schedule and site arrangements, developing the questions and presentation, getting the equipment and materials together, and otherwise doing whatever is needed to make the exercise happen. These are the duties of the exercise manager. If you’re reading this far into these instructions, that’s probably going to be you!

The exercise manager may or may not be drawn from the agency or group sponsoring the exercise.

Identify Moderator

While the manager takes care of the nuts and bolts, the moderator is the leader with the job of guiding participants through the four-step exercise process. The moderator’s tasks are to: introduce and explain the exercise, and pose the questions in Step 1; ask participants to identify

their most important responses in Step 2; explain the wall walk in Step 3; and, finally, summarize the results and lead the discussion in Step 4.

The moderator should be selected as early as possible to participate in exercise planning, including the preparation of any presentation and remarks that they may want to deliver. The moderator need not be a distinguished orator, but modest public speaking and presentation skills are needed. The case studies' moderator's remarks included in Appendices B and C are samples that can be modified to assist most speakers.

Most importantly, the moderator should have a stake in the exercise's results, occupying a position to act on the participants' ideas. In most cases, this will mean that the moderator is a member of the agency or group sponsoring the meeting. For example, the Everglades workshops were moderated by the Corps' study manager (senior technical leader), and the National Watershed Coalition exercise was moderated by the Coalition's Executive Director. Leadership by a recognized stakeholder should build credibility and acceptability of the exercise and its results.

One individual may be both the exercise manager and the moderator. However, the exercise imposes enough duties and worries to generally warrant assigning the jobs to two individuals. First time exercises, and exercises involving very large numbers of participants or contentious issues, should always have a separate manager and moderator.

You should also consider a candidate for a back-up moderator in the absence of the selected leader. At the National Watershed Coalition conference, a second moderator was identified the day before the exercise when the original leader was unavoidably absent. The moderator's role is reasonably straightforward and should be relatively easy for an experienced person to assume without extensive preparation. However, you may want to identify such a person early and ask them to be prepared to moderate if needed.

Identify Support Team

In addition to the moderator, you'll also need the help of at least a few other people. First, there's the basic activities involved in setting up before, and cleaning up after, the meeting, including distributing and later collecting response sheets, assembling and later disassembling flip charts, and so forth. Second, at least one person should be stationed at each question's paper "wall" during the Step 3 wall walk. The duties of these wall monitors include providing participants with markers, removing filled flip chart pages and taping them to a nearby wall, keeping lines moving, and otherwise assisting participants.

Finally, during the final Step 4, at least one person must read the responses for each question and prepare a brief summary of what they reveal.

The exercise moderator may be able to help you recruit support team members.

As the exercise manager, you should be involved in all these activities. The moderator should also at least be involved in reading the displayed responses and the questions' summaries. Ideally, you'll have the services of a few other people as well. Because the Step 3 wall monitors will be reading the responses as they are written, they should also participate in developing their questions' summaries to take advantage of their familiarity with the responses. If a very large group - say over 200 people - is participating in your exercise, you may want to recruit additional monitors to minimize the time it will take to prepare the summary.

Although the support team's duties are not difficult, members should meet two qualifications. First, they should understand the language likely to be used in participants' responses. This is more critical in speciality meetings, such as professional conferences or agency-related meetings, where responses may refer to specific programs or use acronyms that are not familiar to an outsider. An adequate knowledge of these is necessary to properly understand, interpret and summarize participants' responses in Step 4. Second, like the moderator, your support team should have a stake in the exercise results, and may best be recruited from the agency or group sponsoring the meeting. The Corps' study team provided support during the Everglades meetings, and teams drawn from several participating agencies and groups assisted at the National Watershed Conference and Watershed '96.

Identify Participants

You will probably not know in advance exactly who, or how many people, will participate in the exercise. However, you should spend some time thinking about the expected audience. At a practical level, the number of people will influence the amount of materials needed, room size and exercise time. In addition, the type of people expected may impose other requirements. For example, is there likely to be a need for a signing interpreter for the hearing impaired, or an interpreter for a language other than English? Will some participants need help writing responses to questions? A group of professional experts may be more likely to bring their own pencils and pens than people attending a meeting open to the general public.

At a broader level, you should also consider what the participants may expect when they walk into the meeting. Some may be familiar with the conventional public hearing meeting format, and may expect an opportunity to express their views on subjects unrelated to the exercise purpose or questions. Blocs of special interest groups will probably come with such expectations. Other participants may not expect the exercise's workshop approach, or may view it as a "pop quiz". Identifying the range of the likely participants' expectations should help you minimize misunderstandings and increase your chances for success.

The three case studies show that the exercise has been successful with both general public and professional audiences. Participants in the Everglades meetings included people from many backgrounds and walks of life, including interested homeowners, farm workers, young adults, business owners, environmental activists, and local politicians. In other professional

conferences, participants included generally specialized professionals representing public agencies, businesses and interest groups.

The case studies and other experiences have also shown that the exercise works better with larger numbers of participants. The minimum number of participants for using the large group response exercise is about fifty people, and a format of small groups will probably work just as well with fewer than fifty. There is no maximum number of participants other than practical limits on the meeting site, materials and time. About 400 people participated in one of the Everglades meetings and at the National Watershed Coalition Conference, and an estimated 1,000 people participated in the Watershed '96 exercise.

Develop Schedule

Ideally, the large group response exercise should be scheduled to be completed in a single continuous block of time. In the Everglades workshops, the exercise was conducted in a 45-70 minute period as the second part of a four-part meeting. The typical exercise schedule during these meetings was:

- 20 minutes for Step 1- Questions and Responses, including a 5 minute introduction.
- 5 minutes for Step 2 - Most Important Responses.
- 15-30 minutes for Step 3 - Wall Walk, depending on the number of, and interaction among, participants.
- 5-15 minutes for Step 4 - Summary, depending on the nature of the discussion.

If the meeting schedule is very tight or other factors preclude conducting the exercise as a single continuous activity, then it may be scheduled to fit the circumstances. For example, at the National Watershed Coalition Conference, the exercise was scheduled over the course of a morning, with Steps 1, 2 and 3 separated from Step 4 by a plenary session. At Watershed '96, the exercise was scheduled over a day and a half, with Steps 1 and 2 conducted during a morning plenary session, Step 3 stretched out over the remainder of the day, and Step 4 split between the evening (summarize responses) and the next day (report results).

While noncontinuous scheduling may lead to a better fit in an agenda, participation may suffer if participants lose the immediate interest generated by Steps 1 and 2. When possible, the large group response exercise should be scheduled to be completed in a single session uninterrupted by other activities.

Identify and Visit Site

The site of the exercise should have writing surfaces for the participants, adequate floor space for circulation during the wall walk, and wall space suitable for the display of "most important" responses.

In some cases, such as professional meetings, you may expect many participants will bring a book, a pad of paper, or some other item that can be used as a writing surface, and the exercise site will not have to provide writing surfaces. In other cases, such as meetings involving the general public, writing surfaces may be provided on meeting room tables, or on fixed or retractable desk-tops in some auditoriums and lecture halls.

A room's floor space and wall space are also important to consider in deciding whether a site will be adequate for your exercise. The flip chart "walls" used during the Step 3 wall walk should be placed as far apart as possible to minimize circulation congestion during the wall walk and to reinforce the distinctions among the exercise questions. Placing walls in separate corners of a room will usually meet this need. In addition, the room walls around each flip chart wall should be empty and large enough to hold the number of flip charts pages likely to be produced during the wall walk. In past exercises, participants have written an average of about 8 responses on each flip chart page. If you expect 200 people to participate, they could produce 25 flip chart pages for each question, requiring a nearby room wall area of at least about 18 feet wide and 8 feet high to display all the pages (8 pages wide by 3 pages high).

For the Everglades public workshops, the site requirements were met by holding the meetings in school cafeterias equipped with tables in a familiar lunch-room arrangement. The tables and chairs provided a less confrontational arrangement than the traditional auditorium-style set-up. The tables served as writing surfaces and also provided an opportunity for members of the study team to spread out maps and other material during discussion with small groups of people before and after the workshops. Cafeterias also proved to be flexible and large enough so that all the exercise steps, including the wall walk, could be conducted in a single room. Figure 1 shows a typical room arrangement for the exercises conducted during the Everglades workshops.

The National Watershed Coalition Conference and Watershed '96 exercises were conducted in convention centers. In both cases, Steps 1, 2 and 4 were completed in auditoriums, while the Step 3 wall walk was conducted in near-by open areas outside the auditoriums. Participants used notebooks and similar materials as writing surfaces during Steps 1 and 2.

Once a meeting site is identified, it is very helpful to visit it for a step-by-step walk-through of the exercise. At the site you can identify how the room will be arranged, where the moderator will stand, and where the paper walls can be set up. Is the lighting adequate? Will you need a public address system? Are there enough seats for the expected number of attendees? Is the room large enough to accommodate the Step 3 wall walk, or should the wall walk occur in another room? Does the site allow you to tape paper to the room walls; will tape actually hold on the wall

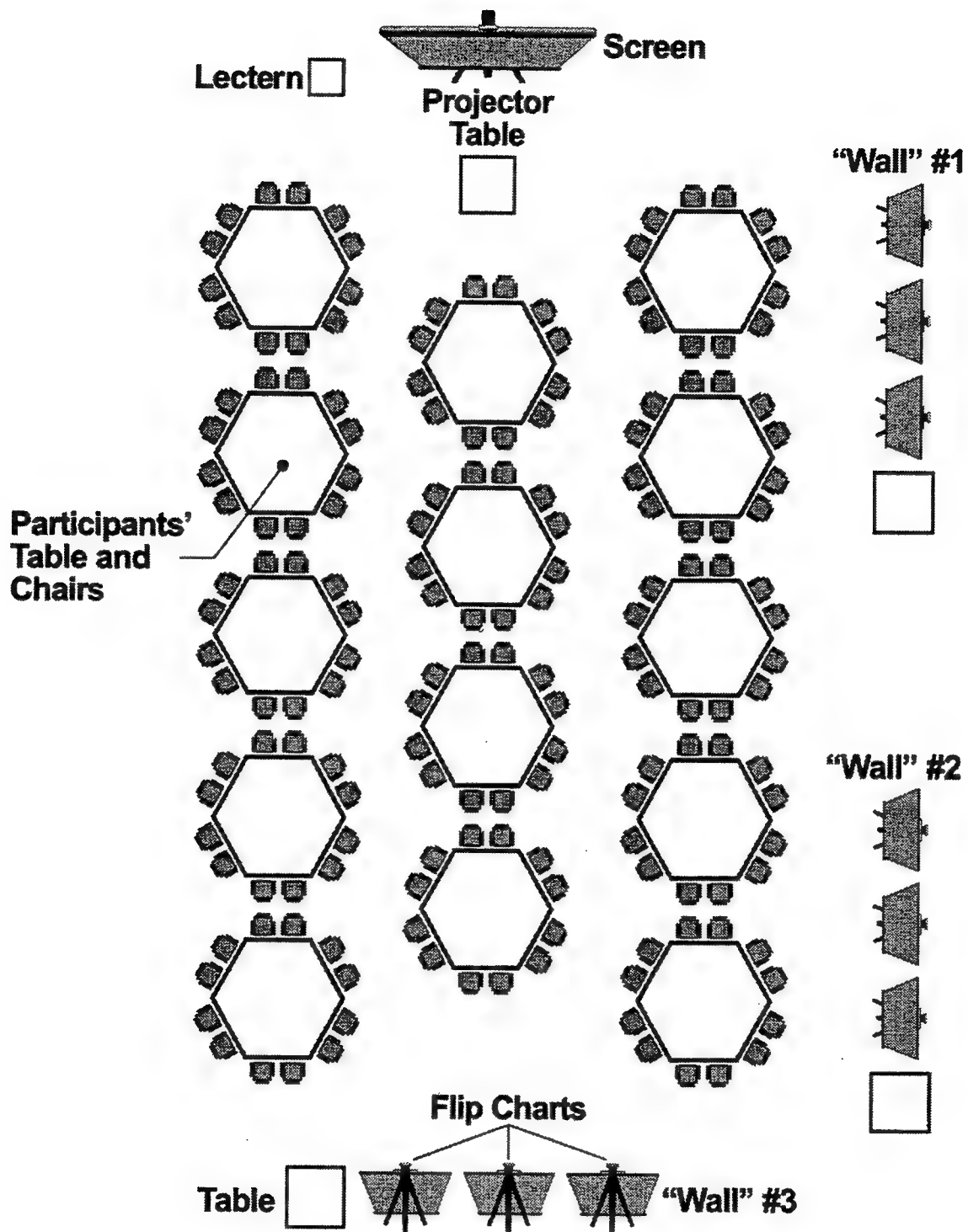


Figure 1 – Typical Room Arrangement

surface? An early site visit will help you answer these questions, and possibly modify the exercise or facilities before problems arise.

Prepare Questions

The heart of the large group response exercise is a set of questions. Each question is an indicator of an important point related to the sponsoring agency's or group's purpose for the meeting, and the questions should therefore reflect the meeting's theme. Table 3 lists the themes and related questions from the three case study exercises. Ideally, each question will have a specific purpose for being asked. For example, see the Everglades case study (Appendix A1, page 5) for a description of the reason behind each question used in the public meeting exercises.

Questions should be developed by the sponsoring agency or group. Table 3 also lists the groups that developed the questions in the three case studies. In all three cases, the groups were both multiagency and interdisciplinary, and the questions were discussed during at least one of the group's exercise planning sessions. In the Everglades case study, the questions evolved over several months of debate (see Appendix A1, Table 3).

Questions must be clear to ensure that you'll get the type of information you intend. They should be simply worded, brief, and specific, but not leading or threatening. They may build a story, or be based on a strategy such as:

- A positive question - "What's going right with...?"
- A negative question - "What's wrong with...?"
- A future-looking question - "Ten years from now...?"

Questions should be open rather than closed. Open questions cannot be answered with "yes" or "no" or have a single answer. They should allow for an open flow of information in the responses, inviting a true expression of opinion and feelings regardless of whether an person is favorable or unfavorable to a certain point of view (USACE 1998).

Appendix D is a collection of questions developed for several exercises. It may be a helpful reference when you begin to write questions for the information you need.

Experience in the case studies has shown that three questions is a reasonable number to use for a large group response exercise. Fewer questions are probably not a cost effective use of the exercise and would not take advantage of your investment and the opportunities presented by the exercise. On the other hand, although you could use more than three questions, participants may grow tired and distracted by more questions.

Try out your proposed questions in advance on a small test group. Did the group members understand the questions? Can you use the types of responses you received?

Table 3 - Questions From Three Case Studies

CASE STUDY 1 - EVERGLADES PUBLIC WORKSHOPS

Meeting theme: problems and opportunities in the Everglades ecosystem

Exercise questions:

- #1 - "What are the important resources in the South Florida ecosystem?"
- #2 - "What do you think are the problems and opportunities in the ecosystem?"
- #3 - "How will you recognize successful restoration of the ecosystem?"

Who developed the questions? The multiagency, interdisciplinary study team, and the team's Public Involvement Technical Input Group.

CASE STUDY 2 - NATIONAL WATERSHED COALITION CONFERENCE

Meeting theme: tools for watershed planning and management

Exercise questions:

- #1 - "What tools did you find that you think will continue to be useful tools for watershed planning and management over the next ten years?"
- #2 - "What tools did you find that you think are no longer useful for watershed planning and management over the next ten years?"
- #3 - "What tools did you not find, but you would like to add, or you feel we must add, to our watershed planning and management toolbox over the next ten years?"

Who developed the questions? The Executive Steering Committee, National Watershed Coalition.

CASE STUDY 3 - WATERSHED '96 CONFERENCE

Meeting theme: share and learn from watershed successes and challenges

Exercise questions:

- #1 - "How do you recognize successful watershed management?"
- #2 - "What are the obstacles to using a watershed management approach?"
- #3 - "During the next ten years, what should be done to improve watershed management?"

Who developed the questions? An interagency watershed working group.

In most cases, you should prepare the questions well in advance of the exercise. However, at the most recent National Watershed Coalition Conference, participants were polled during the initial conference registration about the issues they would like addressed in a large group response exercise scheduled for the third day of the meeting. The conference manager reviewed and used the results to develop three exercise questions.

Prepare Response Sheet

During exercise Steps 1 and 2, participants will write and select their responses to the exercise questions on a response sheet. In the three case studies, response sheets were prepared and printed before the meeting. In other cases, it may be just as easy to use blank sheets of notebook paper or other types of paper for recording responses.

A typical preprinted response sheet is illustrated in the box. It is printed on 8 ½" by 11" paper, has a header (usually a title, location and date), and the bulk of the page is divided into equally sized and numbered sections. The number of sections will equal the number of questions to be asked during the exercise. The size of each "answer box" defines the length (and, to some extent, the detail) of expected responses. Only the question numbers, and not the question statements, are printed on the sheet. This focuses participants solely on the questions as they are presented during the exercise, thereby evoking their first (and, therefore, presumably their "most important") impressions.

The response sheet may also include checkboxes or blanks for participants to provide (at their option) selected demographic or other relevant information, such as their home zip code or how often they use a particular facility. During later analyses such information can be cross-tabulated with responses and can sometimes yield valuable insights. Exercise care to ensure that any information requested does not violate privacy or reporting standards and requirements.

The opposite side of the response sheet may be marked for "other comments", providing additional space to continue answers to the exercise questions as well as other ideas.

Response sheets used during the Everglades public meetings and the National Watershed Coalition conference were printed on yellow paper so that they would be readily identifiable by participants before the exercise and for easy collection after the exercise.

At the end of each Everglades workshop, take-home response sheets were also distributed so that participants could record and reply with additional ideas and comments in the days after the

Typical Response Sheet

Macca River Basin Study Public Meeting Julianville High School April 3, 1998	
1	
2	
3	

meetings. The take-home sheets were similar to the yellow response sheets used during the exercise, except that they were printed on green paper, the text of the questions were printed in their respective "answer boxes", and a return address was included on the back of the page. Over 300 take-home response sheets were returned within about a month of the final Everglades meeting.

Prepare Presentation

The moderator will present the exercise with at least a verbal explanation of the process. The explanation should include a brief introduction that tells the audience why the exercise is being conducted, how it will be run, and what will be done with the results. The moderator then leads the participants through the exercise, step by step, explaining the decisions and activities at each step. Remarks introducing each exercise question can provide participants with examples and guidance about the types and detail of information requested.

In addition to the why, how and what explanations, the moderator's remarks should also include the following instructions to participants:

- There are no right or wrong answers in responding to the questions (Step 1) and choosing "most important" responses (Step 2).
- Participants may start their wall walk (Step 3) at any wall and proceed in any order.
- Participants should put up their most important idea for each question, even if someone else has already written the same idea or something similar (Step 3). This is necessary to reveal how many different important ideas there are, and how many people think the same thing.
- Good penmanship counts. You'll be grateful that this point was made if you are part of the team that summarizes or later analyzes the exercise results in several hundred different handwritings.

Some moderators will need only the text of the questions or a few notes in leading the exercise. The Everglades meeting transcript in Appendix A2 provides an example of a case where the moderator spoke from minimal notes.

Other moderators will be more comfortable if they can refer to a complete text during the exercise.

Such texts were prepared for the National Watershed Conference (see Appendix B) and

The moderator should tell the audience:

Why are we doing this?

How are we going to do it?

What will we do with the results?

Watershed '96 (see Appendix C). The texts for these exercises are useful models if you will need to prepare a text for your moderator.

In addition to a text, the presentation may also include visual aids. Previous exercise presentations have used 35mm slides and overhead viewgraphs to illustrate moderators' explanations. Slides that accompanied the moderators' remarks used at the National Watershed Conference and the Watershed '96 exercises are in Appendices B and C, respectively.

As with any presentation, it is always good practice to rehearse well in advance of the meeting. A dry run will build confidence in the moderator and identify any points that should be revised.

Assemble Other Materials and Equipment

In addition to response sheets, other materials and equipment for the large group response exercise include: pencils or pens, flip charts, markers, tape, signs, and collection boxes.

- *Pencils or Pens.* During Step 1 and 2, participants will write and prioritize their responses to the exercise questions on the response sheet. If you are conducting the exercise as part of a public meeting, you should provide each participant with a pencil or pen for these steps. In some cases, such as professional conferences, where you may expect many participants will bring their own pencil or pen, you may need to provide fewer.

- *Flip Charts.* A flip chart consists of a pad of paper fastened to a board which is attached to an easel stand. The paper is usually newsprint quality and measures about 32" by 27". The easel stand is typically 70" high, with three or four legs. During the Step 3 wall walk, participants will write their "most important" response to each question on flip chart paper.

You'll need at least one flip chart for each exercise question, but multiple charts are recommended for an efficient wall walk. A rule of thumb is to have one flip chart for every 100 participants for each question. You can place multiple charts against one another to form a "wall" of paper. For example, if you want to ask three questions of 400 people, you should obtain twelve flip charts and place them in three sets of four charts, forming a paper "wall" for each question.

If flip charts are not available, you can substitute other surfaces for the wall walk.

Flip Chart Technology Tips:

- There are a number of different types of flip chart easel stands, each with its own peculiar assembly and disassembly procedure. Best advice - take your time and it will come together. Practice helps.
 - Before the meeting, tear off several short strips of tape and lightly tack them to the side or back of each easel stand. This will save time and confusion during Step 3.
 - Also before the meeting, number each flip chart page you expect to be used with at least the question number. You'll be thankful for this when you refer to these pages back in the office after the meeting.
-

For example, you can create a wall by placing a table on its side atop another table. Sheets of paper can be taped to the tabletop wall. Or paper can simply be taped to the room wall. In either case, you should tape up several thicknesses of paper to prevent marker ink from bleeding through and damaging the wall surface. You should also check this approach with the owner of the facility.

If a very large number of participants are expected, then you may need to consider still other wall walk approaches. This was the case for the Watershed '96 exercise, where up to 2,000 participants had the potential to create enough chart pages to cover over 6,000 square feet of wall when displayed. As a more reasonable alternative, small color-coded self-stick notes and large (4' by 8') display boards were used for the Watershed '96 wall walk. See Appendix C for a detailed description of this approach.

- *Markers.* Participants will write their "most important" responses on flip chart paper with common wide-tipped ink markers. You'll need at least one marker for each flip chart. Three markers are recommended for each chart to account for markers that dry out during the wall walk. If different participant groups use different color markers, you can visibly track the views of different interests, but this should be weighed against the benefits of anonymity provided by not doing so.

- *Tape.* Flip chart pages that fill up with written responses during the wall walk are torn from the chart and taped to a nearby wall. Common masking tape usually will hold paper through the course of a meeting and won't damage the wall surface if you carefully remove it.

Check with the individual responsible for the meeting room to determine if they permit tape on the walls (some don't), and, if so, will tape actually stick to the wall surface for the duration of the exercise (sometimes it won't). An alternative to taping paper to walls is to suspend a rope or heavy string and tape papers to the line.

- *Signs.* Each "wall" of flip charts should be accompanied by a sign that displays the exercise question to be answered on that wall. Shorthand statements of the questions may be effective on signs (see box). The sign may be as simple as a sheet of flip chart paper with the question clearly printed and taped to a wall near the flip charts. In each of the exercise case studies, the question signs were professionally printed on large foam core boards. Sign lettering should be bold and large enough to readily be seen from any place in the meeting room.

The questions used at the National Watershed Coalition were shortened on the identifying signs as:

#1 - TOOLS TO KEEP
#2 - TOOLS TO DROP
#3 - TOOLS TO ADD

- *Collection Boxes.* When participants have completed the Step 3 wall walk, you may wish to collect their response sheets for later review and analysis. An empty cardboard box at each flip chart wall will serve this purpose.

Ready to Go

When you've lined up the right people, set the schedule, arranged for the site, fine-tuned the questions, and gathered all the necessary materials and equipment, you're ready to conduct your large group response exercise. Hopefully, its still the day before the meeting.

3. THE EXERCISE: STEP BY STEP

Introduction

The large group response exercise is conducted over four steps. This chapter explains the steps, including pre-exercise set up and post-exercise clean up activities. The three case studies generally followed these steps. If you're interested in an exact account of what occurs, read the transcript from one of the Everglades exercises in Appendix A2.

Exercise Checklist:

- ☐ set-up
 - ☐ Step 1 - questions and responses
 - ☐ Step 2 - most important responses
 - ☐ Step 3 - wall walk
 - ☐ Step 4 - summary, report and discussion
 - ☐ clean up
-

Set-Up

Two set-up tasks are required before you conduct the exercise: set-up of each participant's seating area, and flip chart set-up.

If you are using preprinted response sheets, the sheet and a pen or pencil should be distributed to each expected participant's seating area. During the Everglades workshops these materials were placed on the cafeteria tables at each seat. During the National Watershed Conference and Watershed '96 the materials were placed on the attendees' chairs, and it was anticipated that each attendee would bring a suitable writing surface (book, pad of paper, etc.).

Don't underestimate set-up time. Allow at least one hour to set-up.

Set-up also includes assembling and stationing the flip charts for the Step 3 wall walk. Assembled charts should be butted together to form wide free-standing display "walls" of paper, with one wall dedicated to each exercise question. You should have one flip chart for every 100 participants for each question. In previous exercises, walls were three or four charts (about 7 to 10 feet) wide. Place the walls as far apart as possible to reinforce the distinctions among questions and minimize circulation congestion during the wall walk. Also make sure that there is enough surface area on the room walls around each flip chart wall to hold the number of flip charts pages likely to be produced during the wall walk.

Once the walls are set up, place the markers, tape and collection box at each wall. If your meeting room has a few extra chairs or small tables, you can place one at each wall to hold these materials. It's also always a good idea to put page numbers on the flip chart pages to help keep track of the results, and you can do this during the set-up. Pages can be easily coded by question and page number. For example, use "#1/1" for question #1 page one, "#1/2" for question #1 page

2, and so forth. Finally, each question's sign should also be set-up at its respective wall. Signs may be taped to the nearby room wall, or displayed on a separate flip chart or easel. During the set-up, it's advisable to place, *but not display*, the signs near their walls. This will help to focus participants on the questions when they are presented later during Step 1 of the exercise. The signs should be revealed as the questions are asked during Step 2.

Don't underestimate the time you'll need to complete the set-up. Most people are not familiar with how to assemble a flip chart, and there are many different types of charts with as many different assembly methods. Allow some time for instruction if a number of people are helping you set up the charts. Even the simple task of passing out response sheets should not be overlooked. At Watershed '96, for example, four people took just under one hour to place response sheets on 2,000 chairs. Additional time was required at several of the Everglades meetings to rearrange tables and chairs and clean table surfaces before the set up could begin. Allow enough time to address such circumstances.

When the set-up is complete you may wish to check with the moderator to review the presentation and resolve any last minute problems. You should also meet with each member of the support team to ensure that they understand which question they are assigned to and their role in each step of the exercise.

Step 1 - Questions and Responses

The large group response exercise may be one of several activities to be conducted during a meeting, or the exercise may be the major meeting activity. Regardless of its role in the overall meeting, the moderator should begin the exercise with a brief introduction that tells the audience why the exercise is being conducted, how it will be run, and what will be done with the results. The moderator should also ask the audience if everyone has a response sheet and a pen or pencil, and if anyone needs assistance.

Next, the moderator should present a brief introductory explanation of the first question. For example, in the Everglades exercises the first question was "What are the important resources in the South Florida ecosystem?" This question was introduced by the Corps' Study Manager with the following explanation:

"As citizens of the United States, we enjoy a vast amount of natural resources. We take pride in the bald eagle, the Grand Canyon, and the California redwoods. These are what we share as nationally significant resources. Please think about the important natural resources in South Florida, and in the box numbered one on your yellow [response] sheet, please list what you think are the important resources of the South Florida ecosystem."

During this introductory explanation, the exercise manager or a member of the support team should reveal the question's sign at its respective wall of paper. The sign serves as a reminder of the question during this step, and will direct people during the Step 3 wall walk.

Once the question is stated, participants are given two to three minutes to silently and individually brainstorm ideas, and write their answers to the first question on their response sheets. This question-and-response format should be similarly repeated for the remaining questions. The three case studies each used three questions, and this step was completed in less than 20 minutes in each case.

During this and the next step, the exercise manager or a member of the support team may be stationed close to the moderator and act as a timekeeper, prompting the moderator when the response time is up. Alternatively, the moderator may keep track of the time.

Step 2 - Most Important Responses

When the questions and responses are complete, the moderator provides participants with an additional two or three minutes to individually review their responses, and to select and mark - by circling or checking - their "most important" response to each question. For example:

"Now that you have thought about important resources, ecosystem problems and opportunities, and how you would recognize successful ecosystem restoration, I'd like you to take one more look at your answers to the three questions and see what's really important to you. I'd like each of you to review your answers to each question, and circle your most important response to each. For example, in block number one on your response sheet, circle what you believe is the single most important resource in the South Florida ecosystem. In block two, circle what you think is the most important ecosystem problem or opportunity. Finally, in block three, circle the what you think would be the most important indication of successful ecosystem restoration."

Step 2 should be complete in less than five minutes.

Step 3 - Wall Walk

The moderator next directs the participants to write their "most important" (circled or checked) response to each question on the corresponding flip chart "wall". The moderator should explain that everyone should write their most important response for each question, even if someone else has already written the same idea or something similar, in order to reveal both how many different ideas there are, as well as where many people have the same thoughts.

The experiences from the case studies and other exercises have demonstrated that, after about five minutes, most participants will be up from their chairs and standing at one of the paper walls. People have tended to begin posting their responses at the wall closest to their seat rather than at the wall for the first question, which facilitates easy movement throughout the meeting room. At each wall, lines of between three to six people will tend to form in front of each flip chart. When an individual reaches the front of their line, they will write their "most important" response, and usually pass their marker to the next person in line. Upon posting their final response, most people are happy to drop their response sheet in the closest collection box. In every past experience, audiences have been very orderly and efficient in conducting this "wall walk" process.

At least one member of the support team should be stationed at each of the walls to number and remove pages from the flip charts as they are filled, tape filled pages to adjacent room walls, assist participants with markers and questions, and otherwise keep participants and the process moving. Each support team member should also read the responses to their assigned question as they are being written. This will give them a feel for themes and conflicts around their question, and a head start on developing a summary of the responses.

As the wall walk progresses, participants will usually return to the quickly filling wall displays to read the group's collective ideas about the questions. As the wall walk progresses the walls are gradually covered with responses and results emerge. The late phase of the wall walk provides opportunities for participants to discuss their responses and draw their own conclusions in an informal atmosphere. During the Everglades workshops, this was an especially important aspect at two meetings when several highly charged exchanges among participants from urban and agricultural areas appeared to be the beginnings of personal understandings among people who were traditionally in conflict with one another.

During each of the three case studies, refreshments seemed to improve the atmosphere and interaction among participants during the wall walk. Vending machines were in or nearby most of the schools in which the Everglades workshops were conducted. Coffee and pastries were available to participants during the National Watershed Coalition exercise. At Watershed '96 participants tended to visit the response display boards during coffee breaks and the conference lunch period.

When the participants have written their responses on the paper walls, discussions appear to be concluding, and the support team has prepared response summaries (see below), the moderator should ask participants to return to their seats for a report and discussion of the results.

The wall walk was completed in 15 to 30 minutes during the Everglades workshops, and in about an hour at the National Watershed Coalition conference. In most exercises, the duration of the wall walk will be a function of the number of people involved and their desire to interact.

At Watershed '96, the wall walk was conducted in a very different manner, and continued over almost seven hours during which participants could post their responses at their convenience. See Appendix C for a complete description of how this wall walk was redesigned to meet different requirements of this meeting.

Step 4 - Summary, Report and Discussion

The final step provides a summary of the group's answers to the exercise questions. It begins soon after the start of the wall walk when the support team reads the responses as they are being written. Because of their immediate familiarity with the responses, support team members will be in the best position to summarize the results for their assigned questions.

Although preparation of a question's summary can be a one-person effort, it's advisable that the summary reflect several perspectives from a team effort. Therefore, near the end of the wall walk, the moderator and exercise manager should also visit each paper wall to independently develop summaries. They can then confer with the support staff to quickly summarize what the team believes the participants have said. In discussing the results, the team should consider the following:

- *Consensus.* Does there appear to be a consensus among the participants' "most important" responses to each question? Does one response come up over and over and dominate all others? Or, are there two top responses, or three top responses? What theme or themes seem to sum up the responses? Select several responses as good examples of each theme.

"The top three responses are..."

- *No Consensus.* Does it appear there is no set of common responses (top three or top four) among the participants' "most important" responses. Do most responses seem to be unique? Are there many different themes among the responses? Select several good examples that illustrate the diversity of responses.

- *Responses of Interest.* Some individual responses may be of interest in themselves and worth reporting in the summary. For example, a completely new approach to a problem, an especially profound statement, or a particularly humorous or creative idea may deserve to be mentioned.

In reviewing the responses, it's very important to keep in mind that the exercise is not a voting process in which responses are counted and compared. A count and comparison of numbers of responses would be meaningful only if the complete universe of a defined population participated in the process (for example: all attendees at a public meeting, or all members of a graduating class). This is not likely to be the case in most situations where the large group process is used.

In most cases you should be able to quickly develop a sense of the general frequency of responses, but you should not portray this as the results of a vote.

When the team has agreed on the results for each question, you should write a summary that the moderator can read to the reassembled participants. In the three case studies, a list, or "bullet", format summary successfully captured the participants' collective response to each question. The summary need not include a large number of points but should cover all the important ones. It may be most efficient and effective for one person, such as the exercise manager, to do the writing. As a minimum, each question's summary could be written on a 3 x 5 card, on a flip chart page, or on a sheet of paper. If you're using overhead viewgraphs with the presentation, you may write the results on a new viewgraph for display during the moderator's report. If you have computer capabilities at the meeting, you will have a variety of other immediate reporting options.

With a summary in hand, the moderator will ask participants to return to their seats, and will present the results of each question. The moderator should highlight where there appears to be a clear consensus among the group's "most important" responses. They should also indicate where

Have a plan to act on the results, and tell people about it.

there appears to be no clear consensus on a question, and note that it is just as useful and important to understand where there is no agreement as it is to know where there is agreement. In either case, the moderator may wish to physically point to a few example responses for each question to support the summary. Any responses of interest may also be presented.

The moderator should also encourage audience discussion and reaction to the summaries. Discussion can be stimulated by asking what people think about the results; do they agree or not? If not, what do they believe are the group's main responses? Does anyone have any additional thoughts in response to the questions? The discussion may verify and reach an audience consensus on the team's summary; or it may identify minority views from participants; or, in what should be rare instances, it may lead to a different set of results. In any case, the discussion is a necessary step to participants' acceptance of the exercise conclusions.

In concluding this step, the moderator should explain what will be done with the exercise results. The previous report and discussion may be the expected end, and it may be enough simply to make participants aware of the results. However, other intended uses should be described to give participants a sense of usefulness and closure for the exercise.

This final summary, report and discussion step was completed in between 5 and 15 minutes during the Everglades exercises. At the National Watershed Coalition Conference a summary was completed in about 30 minutes, and the report and discussion took about 20 minutes. At Watershed '96, the summary was developed through discussion and a physical rearrangement and grouping of responses that had been written on self-stick notes (see Appendix C). This process was completed in about an hour and a half following the first day of the conference, and

produced a very effective wall-sized report that many participants visited the following morning. The Watershed '96 report took about 5 minutes during the next day's luncheon; discussion was invited but there were no comments following the report. In each of the case studies the summaries identified major themes based on the most frequently written responses. Even at meetings where over 200 people participated in the exercise, summaries were relatively easy and quick to prepare. In almost every case the closing discussion verified the team's summary, and only minor changes were ever suggested. ...

Clean-Up

After the meeting, clean-up will be just as important as the opening set-up. Remove paper taped to walls (carefully, to avoid harming the wall surface), disassemble flip charts, return tables and chairs to their original locations, pick up trash, and otherwise leave the meeting room in a suitable condition and reclaim your equipment and materials.

Further analysis and use of the results of your large group response exercise will depend on the records you take away from the meeting. Be sure to collect response sheets, flip chart sheets with "most important" responses, and the notes or pages with each question's summary results. Check to make sure that at least the question number is clearly marked on each "most important" response sheet and the summaries.

The exercise documentation may be larger than you expect. For example, the exercise at the National Watershed Coalition Conference produced:

- 148 response sheets, developed during Steps 1 and 2. Other response sheets were completed but were not deposited in collection boxes.
- 58 flip chart pages of "most important" responses, developed during Step 3.
- 3 summary pages, developed during Steps 3 and 4. There was one page for each exercise question, summarizing all participants' "most important" responses.

Be prepared to walk away from the exercise with a substantial stack of papers.

4. USING THE EXERCISE RESULTS

Introduction

Your large group response exercise is over - now what? In some cases, the material developed during the meeting may be enough to meet the sponsor's need. In other cases you may wish to further analyze the results and prepare additional documentation. Ultimately, the results should be put to use. This chapter discusses how you might use the results from a large group response exercise.

Analysis

The results from a large group response exercise should provide a rich source of ideas that may warrant more detailed study and consideration. Further analysis can range from simply reading the documentation to be fully informed about participants' ideas, to key word and content analyses. In the cases of the National Watershed Coalition Conference and Watershed '96, the exercise documentation and brief reports (see Appendixes B and C, respectively) were provided to the sponsor for their information, and no additional analyses were conducted.

In contrast, the response sheets from the Everglades workshops were methodically analyzed in detail. First, every participant's "most important" response to each of the three workshop questions was copied directly from the original response sheets into a word-processing data base. Next, an ad hoc software program was used to prepare a concordance and a list of words in order of their frequency of use. The frequency list was reviewed and discussed by study team members, and, together with the teams' general sense of the public's priorities, it provided a basis for a list of ten major areas of public concern about Everglades restoration (see Table 5 in Appendix A1). Several sophisticated computer software programs for text analysis are commercially available and could provide various types of findings and reports using the large group response exercise documentation.

If your exercise response sheet asked participants to provide selected demographic or related information, you can tabulate that information with responses and conduct sorts and comparisons to reveal correlations or other valuable insights. For example, responses grouped by zip codes may indicate a stronger level of consensus in some locations compared to others.

Documentation

You should provide the exercise sponsor with a record of the results. The record should include the material developed during the meeting: original individual response sheets, typed copies of

the flip chart pages of "most important" responses developed during Step 3, and typed copies of the summary pages developed for Step 4.

The sponsor may also request a separate report of the results. The report may be a stand alone paper or material that is intended to be incorporated into another document. It should address the meeting background, exercise questions, how the exercise was used, the results and any results' analysis. The individual response sheets and typed "most important" response pages and summary pages may be included with the report. The reports prepared for the three case studies are in appendices A1, B and C.

The sponsor may also want to provide a short follow-up page - a "fact sheet" - to exercise participants. For example, after the Everglades workshops, a summary table of the most common responses to questions was prepared to show the range and consistency of responses across seven exercises (see Table 4 in Appendix A1). This summary was sent to all participants and other interested parties about one month after the final workshop.

Use

The ultimate uses of what comes out of a large group response exercise will depend on the sponsor's intent and desires. The three case study exercise illustrate different uses of results. In the Corps' Everglades study, the list of major public concerns developed from the results of seven exercises led to the initial reconnaissance set of restoration planning objectives and constraints (see Table 9 and 10 in Appendix A1).

The leadership and staff of the National Watershed Coalition reviewed and discussed their results in the weeks following the conference exercise. The Coalition eventually used the results in testimony, position papers, presentations and responses to letters.

At Watershed '96, the summary of responses was the final exercise product and there was no intention of taking the results further. However, an interest group took the response sheets and used them at a later meeting to help develop joint watershed programs among its members.

5. OBSERVATIONS

Introduction

Our experience in the three case studies and other meetings has led to many observations about the large group response exercise. A variety of specific conclusions and lessons learned are presented in the "Observations" that conclude each of the case study reports. Many of these points are included in the previous chapters. This chapter provides some more general observations, final bits of advice drawn from the collective experience, and a closing request.

Time

Full participation by a large group can be completed and the general results are known in between about one and two hours. The Everglades exercises were completed in between 45 and 70 minutes (see Appendix A1, Table 7), and the National Watershed Coalition exercise was completed in about two hours. At Watershed '96, exercise Steps 1 and 2 and instructions for the Step 3 wall walk were completed in about 25 minutes; the entire exercise probably could have been completed in two hours if Step 3 had been limited to an hour and the Step 4 summary had been conducted immediately after the wall walk.

Cost

Exercise costs are probably about the same as the cost of a more traditional public meeting or workshop. Extra costs may be incurred if you rent flip charts or for other material or supplies, or if a large room or other factors are needed for large crowds. However, there should be little or no additional expense for an exercise conducted as an integral part of a meeting or workshop.

A large group response exercise can have considerable savings in costs, as well as time and difficulties, over a small group format. For example, the National Watershed Coalition initially considered breaking conference participants into small groups for a "working session" to address important issues. With between 400 to 700 expected attendees, the conference planners quickly recognized that between 20 and 35 "small groups" of 20 people each would be needed. This would also require between 20 and 35 meeting break-out rooms, group facilitators and recorders, and sets of equipment (flip charts, markers, etc.). Furthermore, the small group reports to the full conference would take between 1 hour 40 minutes and 2 hours 55 minutes if each group took only 5 minutes to present its findings. In situations like this, the monetary and cost expenses and related logistical difficulties of using a small group format can be overwhelming, and the large group approach may be more cost effective.

Participation

One gauge of peoples' participation in a large group response exercise is the number of collected response sheets compared to the total number of people in attendance. Using this indicator, participation rates were highest at the Everglades exercises, which were conducted in a public meeting setting. Of the estimated 1,280 people who attended the seven Everglades workshops, at least 67% participated in an exercise (see Appendix A1, Table 8). This relatively high participation rate was probably attributable to the high level of interest in the subject of the meetings, as well as the clearly stated intent to use the exercise results in making decisions about study objectives and constraints. In addition, about five times as many people participated in the exercise as spoke from the podium during the public statement part of each workshop. Although there may have been more speakers in the absence of the exercise, the results show a dramatic difference in active participation by using the large group approach over a more traditional hearing-type approach.

Participation was lower in the two conference-setting case studies. About 50% of the National Watershed Coalition conference attendees participated in their exercise. The much lower rate of about 20%

at Watershed '96 was most likely the result of a number of factors, including: a somewhat hidden wall walk area, a dissipation of exercise momentum by staging the wall walk over seven hours, and the intent to demonstrate the exercise process rather than develop information for further use. Participation may have been greater if the wall walk display boards had been located near the coffee break stations, which were in the exhibition hall adjacent to the plenary session hall at some distance from the wall walk site. The neighboring locations of food and display boards at the previous National Watershed Coalition Conference seemed to support and enhance participation in the wall walk at that meeting.

At the Everglades public workshops:
67% of attendees participated in the exercise,
13% of attendees made public statements.

Like all public involvement techniques, participation in the large group response technique is voluntary. During the Everglades exercises, the study team observed that between about one-quarter and one-third of the attendees did not choose to complete a work sheet or write on the flip charts. Also, a limited number of individuals did not appear to complete a work sheet but wrote responses on the flip charts; or completed a work sheet but did not display their answers on the flip charts; or only participated in the summary discussion or final public comment part of the workshop. The voluntary nature of the exercise accommodated this behavior without penalty to the participants.

Advice

Think through the exercise. What is it you want to get from the participants? Communicate what you expect. There is no

THINK IT THROUGH!

substitute for a well-planned meeting that is understood by your audience and your supporting team.

In spite of all your planning, anticipate changes and be prepared to improvise. The Step 4 - summary, report and discussion was made up during the first Everglades public workshop. The exercise moderators changed the day before the National Watershed Coalition conference exercise. At Watershed '96, cloth display boards had to be covered with paper that would hold the self-stick notes minutes before the exercise began.

Use good questions. Thought provoking questions are the heart of the large group response exercise. The needs of the exercise sponsor should drive the questions. Once the questions are drafted, test them on a sample audience to see how they work.

Select a good moderator. The moderator should represent the exercise sponsor and have a stake in the results. Rehearse the exercise with the moderator. Identify a backup moderator.

Follow through on the exercise results. The sponsor made an investment in conducting the exercise. Participants will have expectations about what will be done with the results. Act on what was learned.

A Request...

The large group response exercise was built on the strengths of other group processes. It changes, and improves, with each use. If you have the opportunity to conduct an exercise, we'd like to hear from you about what worked, what didn't work, and what you changed to make it work better. We're available to provide advice before an exercise, and would appreciate hearing your lessons learned after an exercise. Please contact us at:

Kenneth D. Orth
U.S. Army Corps of Engineers
Institute for Water Resources
Casey Building
7701 Telegraph Road
Alexandria, Virginia 22315-3868
telephone: 703-428-6054
fax: 703-428-8171
e-mail: kenneth.d.orth@usace.army.mil

Carol A. Sanders
U.S. Army Corps of Engineers
Headquarters, Office of Public Affairs
Casimer Pulaski Building
20 Massachusetts Avenue, N.W.
Washington, DC 20314-1000
telephone: 202-761-1802
fax: 202-761-1803
e-mail: carol.a.sanders@usace.army.mil

Thanks.

REFERENCES

Delbecq, A.L., A.H. Van de Hen and D.H. Gustafson. 1986. **Group Techniques for Program Planning: A Guide to Nominal Group and Delphi Processes**. Middleton, Wisconsin. Greenbriar Press.

Devries, S. 1994. Personal communication (October 25, 1994). Fusion Center, Office of Strategic Initiatives, Fort Belvoir, Virginia.

Everman and Associates, Inc. 1993. *Corps of Engineers, Central and Southern Florida Project, Comprehensive Review Study, Transcript of Public Workshop Meeting, December 15, 1993, Fort Lauderdale, Florida.*

Orth, K.D. 1995. *Using the Large Group Response Technique at the Fourth National Watershed Coalition Conference*. Pages 335-344 in **Proceedings, 4th National Watershed Conference, Opening the Toolbox: Strategies for Successful Watershed Management, May 21-21, 1995, Charleston, West Virginia**. Lakewood, Colorado. National Watershed Coalition.

Orth, K.D. 1996. *Using the Large Group Response Exercise at Watershed '96*. Alexandria, Virginia. U.S. Army Corps of Engineers, Institute for Water Resources.

Sanders, C.A. and K.D. Orth. 1994. *Everybody Gets to Write on the Walls: A Large Group Response Technique*. In J.L. Creighton, et al, editors, **Public Involvement and Dispute Resolution, A Reader on the Second Decade of Experience at the Institute for Water Resources**. Alexandria, Virginia. U.S. Army Corps of Engineers, Institute for Water Resources. (in preparation)

U.S. Army Corps of Engineers, Jacksonville District. 1994. **Central and Southern Florida Project, Reconnaissance Report, Comprehensive Review Study** (3 volumes). Jacksonville, Florida.

U.S. Army Corps of Engineers, Professional Development Support Center. 1998. **Public Involvement - Communication Skills**. Huntsville, Alabama. (Training notebook, developed by Act II Management.)

APPENDIX A1

EVERGLADES PUBLIC WORKSHOPS

EVERYBODY GETS TO WRITE ON THE WALLS: A LARGE GROUP RESPONSE TECHNIQUE

This paper describes the use of the large group response exercise at the Everglades public workshops in December 1993.

EVERYBODY GETS TO WRITE ON THE WALLS: A LARGE GROUP RESPONSE TECHNIQUE

By Carol A. Sanders¹
and Kenneth D. Orth²

ACKNOWLEDGMENTS

We are especially grateful to Stu Appelbaum, Study Manager of the Central and Southern Florida Project Comprehensive Review Study, for his vision, support, and true belief in the big and small values of what we are doing. Thanks also to "the world's most dangerous Study Team" for discovering the secret procedure to assembling flip chart stands -- Richard Bunnell, Liz Manners, Richard Punnett, Cheryl Buckingham, Dave Unsell, and particularly Rory Sutton for also developing analytical software, Elizabeth Evans for making sure we had all the flip charts we needed, and Sue Sofia for also reading a thousand different handwritings; and everyone else in the Jacksonville District of the U.S. Army Corps of Engineers who had a role in the Study. Our Public Involvement Technical Input Group provided invaluable insight into the particulars of doing public involvement in South Florida: Jacquelyn Griffin from the Corps' Jacksonville District; Cathy Vogel, Kathy Malone, and Kathy Copeland from the South Florida Water Management District; and Pat Tolle from the Everglades National Park. Generous reviews of a draft of this paper were provided by Stu Appelbaum, Cathy Vogel, and Kathy Malone; Sue Devries of the Fusion Center; and Dr. Jerry Delli Priscoli, Dr. Mark Dunning, and Lynn Martin of the Institute for Water Resources. Finally, thank you to the hundreds of people of South Florida that we met and who participated in the Round One workshops in December 1993.

PURPOSE

The large group response technique is a means to elicit, display and summarize responses of a large group of people to a set of questions. It was developed and successfully used by the Corps of Engineers in public workshops in South Florida in December 1993; each workshop was attended by up to several hundred people. Some background on the context within which the process was used is provided in this paper; however, our major focus is the large group response technique, how it was used during those public workshops, and observations based on that experience.

¹ Carol A. Sanders is a Public Affairs Specialist with the Headquarters, U.S. Army Corps of Engineers, Washington DC. Ms. Sanders was the public involvement specialist for the Central and Southern Florida Project Comprehensive Review Study from July 1993 to May 1994.

² Kenneth D. Orth is a Community Planner with the Institute for Water Resources, Alexandria, Virginia. Mr. Orth was the plan formulation specialist for the Central and Southern Florida Project Comprehensive Review Study from July 1993 to May 1994.

BACKGROUND: CENTRAL AND SOUTHERN FLORIDA PROJECT COMPREHENSIVE RESTUDY

The Central and Southern Florida (C&SF) Project is a series of canals, levees, pumps and other structures across central and south Florida. In late 1992 Congress charged the U.S. Army Corps of Engineers to review the existing project to identify modifications that may be needed to improve environmental quality, water supply and other purposes (Committee on Public Works and Transportation 1992; Water Resources Development Act 1992). Study funding was provided, and, in July 1993, the Corps initiated the Reconnaissance Phase of the C&SF Comprehensive Review Study (hereafter referred to as the Review Study). The Review Study's purpose was "to reexamine the Central and Southern Florida Project in light of current demands to determine the feasibility of structural or operational changes to the project essential to restoration of the Everglades and Florida Bay ecosystems while providing for other water related demands" (U.S. Army Corps of Engineers 1993).

The purpose of a reconnaissance study is to define an area's water resource problems and opportunities as well as potential solutions; determine whether planning should proceed further into a feasibility phase; estimate feasibility time and costs; and assess non-Federal support in proceeding further (U.S. Army Corps of Engineers 1990). By law, a reconnaissance phase study must be complete in no more than eighteen months (Water Resources Development Act 1986).

The Review Study reconnaissance phase was designed to be accomplished by an interdisciplinary and inter-agency Study Team working through four major planning tasks: problem identification, formulation of conceptual plans, evaluation of conceptual plans, and recommendations. In the first task of problem identification, "public concerns are identified, technical analyses are conducted to investigate the public and scientific concerns, and planning objectives and constraints are developed" (U.S. Army Corps of Engineers 1994a). Additional background and information about conditions in central and southern Florida and the Corps study are presented in the Reconnaissance Report (U.S. Army Corps of Engineers 1994c).

FIRST ROUND PUBLIC INVOLVEMENT

Because of the high visibility and interest in ecosystem restoration, the Study Team initially articulated two goals for the study's public involvement work: (1) gather input from diverse groups outside of the Corps of Engineers to assist in identifying problems and opportunities and potential solutions, and (2) develop relationships critical to the success of the study and the implementation of the study's recommendations. After the study began, a third goal of managing expectations was added in view of the intense publicity which surrounded the Review Study and the mounting anticipation of a solution that would be developed and implemented.

The overall strategy for public involvement was to focus on a communications effort which would solicit information from the public for the Study Team, and then provide feedback to the public on how the information was used. The primary means for accomplishing this exchange was to be through public workshops, which would support the major reconnaissance planning tasks. Three rounds of workshops were designed. The Round One public workshops were to provide information for the initial "problem definition" phase of the Review Study; Round Two workshops would focus on exploring alternative plans to solve the identified problems; and Round Three workshops would focus on presenting the array of alternative plans and study recommendations. Much like the Review Study's overall public involvement program, Round One activities reflected the collective ideas and criticisms of a cooperative effort among

the Study Team and the study's Public Involvement Technical Input Group (which included representatives from the Corps, the South Florida Water Management District, and Everglades National Park).

Several objectives drove the selection of the design and the locations of the Round One workshops. First, the need to begin planning with public input about local problems and opportunities is a long-recognized principle in Corps water resources planning. As Hanchey (1972) noted:

"Quite frequently water resources projects have been rejected by the public because the planner and the public had a different view of the local problems which needed solution... Public participation techniques should provide the planner with an opportunity to test his perceptions of the local problems and needs by comparing them to those of a representative segment of the local community, prior to beginning the search for possible solutions".

Further, Creighton (1976) acknowledged that early public input is essential, rather than optional and advisory, for planning to succeed in addressing local concerns:

"If public participation is integral to the planning process then it will be similar to certain technical studies which must be completed as part of the planning process not because they are required by law, but because without the information derived from these studies decisions cannot be made. As the guidelines of one agency state: 'The planning process should be designed so progression from one stage to another cannot take place without certain well-defined inputs from the public'."

Accordingly, the primary purpose of Round One was to ask the public to help us accomplish the Review Study's problem identification phase. Specifically, what did people perceive to be the problems, and opportunities, in the Everglades ecosystem? Second, in order for the public to understand why we were having workshops and asking for their help, we had to educate them about the study: why was it being done, and what was it supposed to accomplish? Third, we recognized the intense and often emotional nature of many people's ideas and beliefs concerning the Everglades, and we needed to provide an open forum for anyone to express any views they wished to share with us. Fourth, the workshops needed to foster information exchange, specifically that members of the Study Team were able to have personal contact and understand the concerns of the various members of the public. Finally, we were also aware that government was viewed with some suspicion in South Florida, and that the process we designed could not depart radically from traditional public involvement activities.

In addition to our objectives, we also agreed to provide the South Florida Federal Science Sub-Group (a group of natural scientists from the Federal resource agencies) with meeting time during which they could inform the public about their recent scientific findings concerning Everglades restoration.

Because interest was high and the potential impacts of any solution could be geographically far reaching, the Public Involvement Technical Input Group initially identified locations throughout South Florida for six public workshops: Stuart, Okeechobee, Fort Myers, Clewiston, Fort Lauderdale and Tavernier. After a number of requests from the public in the Miami area, we also scheduled a workshop for Coral Gables, a Miami suburb. Additional workshops to hear from particular special interest groups were scheduled in Clewiston (Everglades Agricultural Area interests), at Homestead (Dade County agricultural interests), and at Miami (local governments). The resulting ten workshops would ensure that at least one meeting would be easily accessible to what we perceived to be the region's major public interests.

With these objectives in mind, we designed a four part public workshop:

Part I - Presentation about the Corps C&SF Comprehensive Review Study (15 minutes) - The Corps' Study Manager would present an overview of the study and an explanation of the workshop format.

Part II - Problem definition workshop (60 minutes) - The second part of the workshop was directed at eliciting the public's responses to the three questions at the heart of the study's problem definition task: What are the important ecosystem resources? What are the ecosystem's problems and opportunities? How would you recognize successful ecosystem restoration? The Study Manager would facilitate this part of the workshop, and the emphasis would be on "work" over a more formal public hearing approach.

Part III - Presentation about the Science Sub-Group Report (15 minutes) - Representatives from the Federal Science Sub-Group would present the background and findings from their November 1993 report on restoration of the Everglades ecosystem (Science Sub-Group 1993).

Part IV - Public comment period - Participants would be provided the opportunity to speak for three minutes to present their ideas and views to all the workshop attendees. This part of the workshop last until all attendees who wanted to speak had spoken.

The Study Team agreed that Parts I, III and IV were to be straightforward and traditional. The Part I and Part III presentations were to be brief talks accompanied by slides. During Part IV, members of the public could speak from a podium at the front of the room. In anticipation of large crowds, we limited speakers to three minute talks during Part IV to ensure that everyone had an opportunity to speak within a reasonable time.

In planning the Part II workshop, we focused on our purpose of eliciting the public's help in defining what the Corps Review Study should address. In addition, the Study Team considered several other factors in developing a workshop process. First, the process in Part II needed to be as objective and focused as possible so that the results would truly reflect public views, and would be the most useful in developing the study's planning objectives and constraints. Second, the intense public interest in the problems of Everglades ecosystem restoration could attract several hundred people to any given workshop. Therefore, the process should be successful with large groups. Third, given the controversial and often emotional nature of the situation, the process should at least initially avoid confrontations that could derail an entire workshop. Finally, the logistical problems and costs of conducting ten workshops encouraged us to find a modest, low-tech, friendly workshop approach that would minimize complications.

A process for the Part II problem definition workshop evolved from several planning sessions among the Study Team, the Public Involvement Technical Input Group, and others. This process, which we now call the "large group response technique", was adapted in part from two other meeting techniques that team members had experience in using. First, the nominal group technique (Delbecq et al 1986) was the basis for our opening steps of posing a question and silent idea generation by individuals. Second, the "wall walk" display process was drawn from practices developed by the Corps' Fusion Center, where a variety of large display techniques are used to exchange and discuss ideas within and among small groups (Devries 1994). Our resulting process appeared to meet all of our major concerns, and we were confident that it was likely to succeed in meeting the study's problem definition needs.

LARGE GROUP RESPONSE TECHNIQUE

The large group response technique was developed and refined over the course of the Reconnaissance Study's problem definition phase. The following section describes the six technique steps (Table 1) that we used for the Round One workshops, including occasional suggestions about other assumptions or ways to accomplish specific tasks. A list of process ingredients is at Table 2. Photos of the set up precede the tables.

Step 1 - Preparation

Two of the most important process tasks occurred prior to the Round One workshops: preparation of the questions to be asked and selection of the meeting rooms.

The Round One questions were developed through extensive debate and discussions among our Study Team members and the team's Public Involvement Technical Input Group. We recognized that the questions to be asked needed to be brief, direct and carefully worded to ensure that they would lead to the type of information that would be useful in the problem definition task. Our questions were developed over several months of debate, and their evolution is illustrated in Table 3. The resulting questions, and the reasons for including them, were:

QUESTION #1 - "What are the important resources in the South Florida ecosystem?" This question was included as a means of "scoping" the significant issues to be addressed in the Review Study, in the spirit of the National Environmental Policy Act's implementing regulations (Council on Environmental Quality 1978).

QUESTION #2 - "What do you think are the problems and opportunities in the ecosystem?" This question was intended to elicit responses that could be used as the bases for the study's planning objectives.

QUESTION #3 - "How will you recognize successful restoration of the ecosystem?" The final question was intended to help the team define results, even "targets", that could be used to measure progress in solving problems and realizing opportunities.

Because the moderator's remarks introducing each question can provide participants with examples and guidance about the types and detail of information requested, we prepared and rehearsed the Study Manager's dialogue for this part of the workshop as a part of our advance preparations.

We also elected to prepare a preprinted work sheet as the recording instrument for participants to write their responses to the three questions. The Round One work sheet consisted of a single sheet of yellow paper, with the front side divided into three equal sections marked 1, 2 and 3, as shown in Appendix A. The one-third page size of each "answer box" defined the length (and, to some extent, the detail) of expected responses. The back side of the sheet was marked for "other comments" and provided space to continue answers to the three questions as well as other ideas. Yellow paper was used so that the sheets would be readily identifiable for collection at the workshop sites; the Round One sheets naturally came to be called the "yellow sheets". The questions were not printed on the work sheet as a way of focusing participants solely on the questions as they were presented during the workshop, and to evoke their first (and, therefore, presumably their most important) impressions. Preprinted work sheets are optional, and, in other instances, it may be just as easy to use blank notebook paper or other means to record participants' responses.

We should also note however, that in publicizing the workshops, the notices included the three questions. Additionally, after the first workshop the questions were included in stories that appeared in local newspapers.

In addition to the "yellow sheet", we also preprinted take-home work sheets on green paper. The "green sheet" was identical to the "yellow sheet" except that the three questions were included in their respective "answer boxes" and a return mailing address was included the back side of the sheet. The "green sheet" was made available to workshop participants as a method for them to record and send us additional ideas and comments in the days after the workshops.

Our requirements for Round One meeting rooms were: first, flat writing surfaces, and, second, ample room for participants to walk about and view flip charts from a distance. After considering a variety of different room arrangements, we selected school cafeterias, equipped with tables in a familiar lunch-room arrangement. The tables and chairs provided a less confrontational arrangement than the traditional auditorium style set-up. The tables also provided an opportunity for members of the study team to spread out maps and other materials during discussions with small groups of people before and after the workshops.

In other instances, other types of meeting sites, such as auditoriums equipped with retractable writing tables or rooms set up with tables and chairs, may also be effective. In some cases it may even be safe to assume that participants will arrive with a notebook or a pad of paper, and there will be no need to make provisions for writing surfaces.

Step 2 - Set-Up

Two set-up tasks were required on the day of (usually immediately before) each workshop: set-up of each participant's seating area, and flip chart set-up.

Study Team members placed a yellow work sheet and a pencil on the cafeteria tables at each participant's seat. In other uses of this technique, it may be safe to assume that participants will arrive with these materials. If not, a preprinted work sheet or blank paper, and a pen or pencil, will need to be distributed to each expected participant's seat.

Concurrently, other Study Team members assembled the flip charts on stands, and placed them in sets to form "walls" of writing paper. A separate set of charts was set up for each of the three Round One questions; each set consisted of three stands (four stands for the larger workshops). The sets were located as far apart as practicable to reinforce the distinctions among questions and minimize circulation congestion during the "wall walk". A box of felt-tip marking pens and a roll of masking tape was included at each set of stands. In other uses of this technique where flip chart stands are not available or advisable, then three or four adjacent sheets of flip chart paper or sheets of newsprint may be attached to the walls in various locations around the room (paper should be several layers thick to prevent ink from bleeding through onto the wall).

The Round One question to be answered during the Step 4 "wall walk" at each set of charts was displayed so that participants could see it from any place in the room. The questions were preprinted in bold six-inch high letters across poster boards that were easily attached to the tops of the flip chart stands. The questions were not displayed in advance of the Step 3 questions-responses so that participants would focus solely on the questions as they were presented. The preprinted displays were optional, and the questions could have been written on flip chart papers and displayed near the stands.

Step 3 - Questions and Responses

The Corps Study Manager led and facilitated the four-part Round One workshops. After completing the Part I study overview presentation, the Study Manager introduced the Part II - the large group response technique - by explaining its purpose and the procedure that the group would follow. Next, the Study Manager presented the following one-minute introductory explanation of the first question:

"As citizens of the United States, we enjoy a vast amount of natural resources. We take pride in the bald eagle, the Grand Canyon, and the California redwoods. These are what we share as nationally significant resources. Please think about the important natural resources in South Florida, and in the box numbered one on your yellow sheet, please list what you think are the important resources of the South Florida ecosystem."

The participants were then given three minutes to complete their responses to the first question on their "yellow sheets". This process of one minute explanations followed by three minutes of participant response on "yellow sheets" was repeated for the second and third questions; and, after less than fifteen minutes, each participant had completed their "yellow sheet" with their individual responses to the three questions. As the Study Manager introduced each question, a member of the Study Team displayed the question above its set of flip charts so that it was visible while responses were being written.

After the three questions were complete, the Study Manager asked the participants to review their responses to each question and circle what they believed was their "most important" response to each question; another three minutes was allowed for individual review and selection of responses.

Step 4 - Wall Walk

Next, the Study Manager instructed the participants to write their "most important" response to each question on the corresponding set of flip charts located around the meeting room. The Study Manager also stated that each circled ("most important") response needed to be shown for each question, even if someone else had already written the same or a similar response. Participants then visited each set of charts and wrote their "most important" response, thereby producing a collective display of the group's ideas about the "most important" responses to the questions. This step became known as the "wall walk" part of the workshop.

During the Round One workshops, two Study Team members were stationed at each set of flip charts to ensure that participants received a marker and to otherwise provide assistance. Team members marked each page of flip chart paper with a brief code that indicated the workshop location, the question number, and the page number. Team members also removed pages as they were filled, and taped them to the wall next to the charts. Although we did not collect participants' "yellow sheets" until the end of the workshop, collection boxes could have been placed at each set of charts for participants to deposit their work sheets after their last responses were written.

The "wall walk" incidentally provided attendees with opportunities to not only read but also to discuss ideas with others. This was an especially important aspect of the Fort Lauderdale and Miami "wall walks" where several highly charged exchanges among participants from urban and agricultural areas appeared to be the beginning of personal understandings among people who were traditionally in conflict with one another.

After all of the participants wrote their "most important" responses, the Study Manager visited each set of flip charts; and, with assistance from attendant Study Team members, reviewed the responses and prepared notes that briefly summarized the results. The summary tended to capture the most frequent - "top three" -

responses to each question; but could also include any apparent major areas of conflict among responses, and the most creative response.

Step 5 - Summary

With summary notes complete, the Study Manager asked the participants to return to their seats, and presented the summary of the responses to each question. This presentation was followed by group discussion of the results - what did the participants think about what they've seen displayed, and did they agree with the Study Manager's summary? This discussion finished the workshop Part II, and the workshop continued through the completion of Part III (Science Sub-Group Report presentation) and Part IV (general public comments). Many participants picked up a "green sheet" as they departed the meeting room.

Immediately after the conclusion of each workshop, the Study Team collected the completed "yellow sheets", flip chart pages, and the Study Manager's notes. During the week after the last workshop, Team members prepared a notebook for each Round One workshop. The notebook included each workshop's "yellow sheets", as well as documentation from the Part IV public comment part of each workshop (prepared statements, transcript, team notes on speakers' statements). Mailed-in "green sheets" and letters of comment were compiled in separate notebooks. In addition, the Study Manager's summary notes, as derived from each workshop's flip chart pages, were collected in a single Round One workshop synopsis. The synopsis, which is shown in Table 4, was sent to all participants and other interested parties about a month after the final workshop.

Step 6 - Analysis

The summary prepared during the meeting may provide an adequate conclusion and report of the results, and no additional analysis may be desired. However, in other cases the completed work sheets may be a rich source of ideas that could be further investigated following the meeting. Analysis can range from simply reading the collective responses in order to be fully informed about participants' ideas, to key word and content analyses of responses.

Following the Round One workshops, the study team developed a data base of all of the workshop attendees' "most important" responses (reported in an Inventory of Public Concerns), and an ad hoc software program to analyze the responses (U.S. Army Corps of Engineers, 1994b). These tools permitted us to rapidly identify how frequently words were used, and to list all the public's statements about any given topic that was included in their "most important" responses. From these analyses, we synthesized the basic list of the ten major areas of public concern shown in Table 5, and prepared the detailed catalog of concerns that was included in the Reconnaissance Report (U.S. Army Corps of Engineers, 1994c). A brief description of each of the major areas of concern that were identified by our analysis is in Appendix B.

Our analysis gave us enough of a sense of the public's priorities to permit a general ranking of concerns ("most people/many people/some people"; Table 5). However, we continually stressed that the process was not a voting exercise in which responses would be counted and compared. A count and comparison of numbers of responses would be meaningful only if the complete universe of a defined population participated in the process (for example: all attendees at a professional conference, or all members of a graduating class).

Several sophisticated computer software programs for text analysis are commercially available and could provide various types of findings and reports using the large group response process documentation.

OBSERVATIONS

Although our experience has been limited to seven workshops for a single planning problem, we were pleased with the performance and results of our first use of the large group response technique. In reflecting on our Round One workshops, we believe the technique has the following benefits to offer anyone who wants to learn about the thinking of a large group:

Large Group - As we have tried to reinforce in its name, the technique works for a large group. As shown in Table 6, public attendance at the seven workshops where we used the technique ranged from 45 to 400. Furthermore, in contrast to a more traditional approach in which "large groups can be broken into small groups which can work effectively and then report back to large groups" (Delli Priscoli 1988), our approach maintained the integrity and dynamics of the single large group.

Quick - Full participation by a large group can be completed and results are known in about one hour. Table 7 lists the durations of technique Steps 3, 4 and 5 as conducted during the Round One workshops.

Flexible - The overall four-part workshop agenda proved to be a flexible approach for the first round of the Review Study's public involvement program. When it became apparent that attendees did not wish to participate in the large group response technique (Part 2) at three of the workshops (the two workshops in Clewiston, and the Homestead workshop), it was readily deleted in favor of the attendees' desires to move as quickly as possible to the public comment period (Part 4). It might also be noted that many of the participants in these three workshops subsequently attended and were in favor of the process at other later workshops.

Our experience demonstrated the ease of using three questions which were relevant to our needs. The number of questions depends on the requirements of the meeting planner. Addressing only one or two questions at a meeting might seem inefficient, although there may be situations where only a single question is necessary or advisable. While more than three can be addressed with little increase in meeting time or cost, the quality of the participants' response may decline if too many questions are added.

Inexpensive - Costs are limited to the types of costs that are expected for any large meeting, including: staff salaries, meeting room rent, and expenses for materials such as flip charts and work sheets. Expenses for break-out rooms and small group facilitator and recorders are eliminated. Additional costs to use this process over the traditional public meeting or workshop are minimal and may actually be reduced if facilitators for small groups were originally planned. Flip charts are usually available or the paper can be secured on the wall. There might be some small costs for supplies such as printing or other materials. The optional additional data analysis may add cost to the overall effort if it is not already a part of the planned data gathering effort.

Low-Tech - The process can be completed using readily available materials and facilities that avoid mechanical, electrical and operator problems that could be associated with more sophisticated technology. Its simplicity is an advantage to participants who are not familiar with, or may even be hostile toward, more sophisticated procedural or computerized techniques.

Self-Recording - The process does not require a traditional "recorder". The process is self-recording by participants, and leaves a clear and immediate paper trail of results documented on the work sheets, flip chart pages, and the moderator's summary notes.

Easy - The steps are straightforward and easily explained and understood. The technique appeared to be accessible and accepted by individuals with a wide variety of experience, education and interests. Required equipment, materials and facilities are familiar, readily available, and not easily flawed. While forethought is necessary to prepare the questions and select the meeting site, no specialized training is needed to conduct the process. The special needs of any audience can be met with some forethought: bilingual translations, sign language for the deaf or additional writing help for those who might not be literate.

Friendly - The technique is user-friendly and accessible to a wide variety of participants. People who attended our workshops appeared to enjoy the process and accept its results. Many were particularly pleased with being asked to publicly display their responses on the flip charts, and then quickly being able to see and compare how others responded. It provided a forum for participation which did not entail public speaking which can be a deterrent.

Built Understanding and Trust - In describing the general principles of collaborative problem solving, Dunning (1986) noted:

"When people feel a sense of genuine participation in the decision making process, and they feel that their participation can make a difference in the outcome of a decision making process, they are more likely to participate seriously and cooperatively."

Because the Study Team went out early and asked people what they thought, provided feedback on what was heard, and then used it to move forward with the study, the process helped build a basis of understanding and trust between the team and the public. Additionally, because the venue was open and the process provided opportunities for people from varying backgrounds to come together, either at a table or at the flip charts, there was a greater understanding of the common feelings which were among the different groups. While the process is not meant as a consensus building effort, the sharing of these common concerns is one stepping stone to a widely acceptable solution.

Voluntary - While we observed some people leaving the workshops with their work sheets, it is reasonable to conclude that between about one-quarter and one-third of the attendees did not choose to complete a work sheet or write on the flip charts. We also observed a limited number of individuals who did not appear to complete a work sheet but wrote responses on the flip charts; or who completed a work sheet but did not display their answers on the flip charts; or who only participated in the summary discussion or final public comment part of the workshop. The voluntary nature of the process accommodated this behavior without penalty to the participants. Note that, because we observed this behavior to be limited, we believe that it did not harm the validity of the overall group's results.

Credible - At the final Round One workshop, several members of the audience suggested that, because it was the last workshop and many people already knew what the questions were, the meeting should skip the questions and wall walk and move directly to hearing public comments. Several other attendees objected:

Unidentified Male: "At the other meetings, the Army Corps took control and conducted the meeting in a very professional and systematic type method so that all of the aspects, all of the study were heard. Why don't we do the same thing here?"

Unidentified Male: "These people that live here haven't had the opportunity that we've had."

The openness and visibility of the process quickly builds credibility among participants. Everyone is given the same instructions and accomplishes the same task at the same time. While the host controls the process, he/she does not influence the results. The results are neither hidden nor changed, and are immediately plain for all to see at the same time.

Ownership - Again, Dunning (1986) noted:

"The way in which something is decided often is as important as what is decided. When people have some ownership in the process which has generated a solution they are more committed to implementation of the solution than if it were imposed upon them."

By virtue of having written their responses in public - visible to their neighbors, friends, and adversaries - participants appeared to have a strong sense of ownership in the collective group results. Audience members would occasionally refer to the "wall walk" material as evidence of their case, or to emphasize their point, especially in addressing the Study Manager.

Increased Participation - The technique can substantially increase the percentage of people that provide information over traditional discussion or public comment forms of meetings. The significant increase in individuals' participation in the Round One workshops is illustrated in Table 8. Of the estimated 1,280 people who attended the seven workshops where the process was used, at least 67% of the attendees participated in the question-response exercise (as measured by collected work sheets), while only 13% of the attendees spoke during the final public comment part of each workshop. While there may have been more speakers in the absence of the question-response process, the results show that there was over a five-fold increase in participation using the Round One workshop approach. This rate of participation gave the Study Team improved confidence that we were hearing from a cross-section of the public rather than a traditional vocal minority of speakers.

Focused - In the case of the Round One workshops, the three questions served to clearly focus attendees' attention on the type of information that had been defined as necessary for the Review study. While people did not limit their responses strictly to the three questions or necessarily ecosystem-related issues, their answers were more directed than rambling, and consequently minimized our need to interpret what they said.

Provides Needed Information - In the business of planning, the objectives that provide the bases for developing alternative plans are themselves based on concerns expressed by the public. The Round One large group response process provided the necessary basis from which the Study Team was able to identify public concerns, and, in conjunction with supporting technical analyses, state the study's objectives and constraints. The resulting planning objectives and constraints for the C&SF Review Study are listed in Table 9. The link between the public concerns identified through the large group response technique (Table 5) and the final study objectives and constraints is shown in Table 10. The public concerns, and objectives and constraints, as defined through this process, were included in the "Review Study News" (U.S. Army Corps of Engineers 1994a) that was distributed throughout South Florida in June 1994 prior to the Round Two public workshops, and became the basis for further work in the restoration of the South Florida ecosystem.

FURTHER DEVELOPMENT

This paper outlines a one-time experience with a large group response technique. Other applications which should be explored are:

Plenary Sessions - Conferences often feature plenary sessions in which the information is, for the most part, one-way. A speech or panel could be followed by the large group process and gather more feedback than a traditional ten-minute question period. For instance, the audience might be asked what is the largest barrier to implementing a speaker's suggestion.

Identifying priorities - While, at the remaining seven Round One workshops, the large group response technique was consistently repeated to successful conclusions, the six-step process is also amenable to change. For example, although our Round One process was designed to end with a short list of results, participants could go on to identify their collective priorities for the results using, for example, the very visual "colored dot" ranking and scoring approach.

Repeat Usage - Our use of the large group response techniques was limited to one set of workshops which were held over a two-week period. Research should be done on whether the process can be used repeatedly without it becoming invalid or hackneyed.

Generating solutions - Another use for the process might be to use the time to generate an extensive brainstorming list of solutions to a problems and then ask participants to mark, and then share in the wall walk, the most creative solution, the most acceptable and the least acceptable solutions.

REFERENCES

Committee on Public Works and Transportation, U.S. House of Representatives. 1992. Two Resolutions dated September 24, 1992.

Council on Environmental Quality, Executive Office of the President. 1978. Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act. Reprint 43 FR 55978-56007, November 29, 1978; 40 CFR Parts 1500-1508.

Creighton, J. L. 1976. "A 'Thought Process' for Designing Public Involvement Programs in Planning", in Creighton et al, 1983. Public Involvement Techniques: A Reader of Ten Years Experience at the Institute for Water Resources. (IWR Research Report 82-R1).

Delbecq, A.L, A.H. Van de Hen and D.H. Gustafson. 1986. Group Techniques for Program Planning: A Guide to Nominal Group and Delphi Processes. Middleton, Wisconsin; Greenbriar Press.

Devries, S. 1994. Personal communication. Fusion Center, Office of Strategic Initiatives, Fort Belvoir, Virginia. October 25, 1994.

Dunning, C.M. 1986. Collaborative Problem Solving for Installation Planning and Decision Making. (IWR Report 86-R-6).

Hanchey, J.R. 1972. "The Objectives of Public Participation", in Creighton et al. 1983. Public Involvement Techniques: A Reader of Ten Years Experience at the Institute for Water Resources. (IWR Research Report 82-R1).

Priscoli, J.D. 1988. "Conflict Resolution in Water Resources: Two 404 General Permits." Journal of Water Resources Planning and Management, Vol. 144, No. 1, January 1988.

Science Sub-Group of the South Florida Management and Coordination Working Group. 1993. Federal Objectives for the South Florida Restoration.

U.S. Army Corps of Engineers. 1990. Policy and Planning, Planning Guidance, ER 1105-2-100. Washington, DC.

U.S. Army Corps of Engineers, Jacksonville District. 1993 (August 1993, revised November 1993). Central and Southern Florida Project Comprehensive Review Study, Reconnaissance Phase. Plan of Study.

U.S. Army Corps of Engineers, Jacksonville District. 1994a (June 1994). Central and Southern Florida Project Review Study News.

U.S. Army Corps of Engineers, Jacksonville District. 1994b (January 1994). Inventory of Public Concerns.

U.S. Army Corps of Engineers, Jacksonville District. 1994c (November 1994). Central and Southern Florida Project, Reconnaissance Report, Comprehensive Review Study.

Water Resources Development Act of 1986. Section 905(b).

Water Resources Development Act of 1992. Section 309(l).

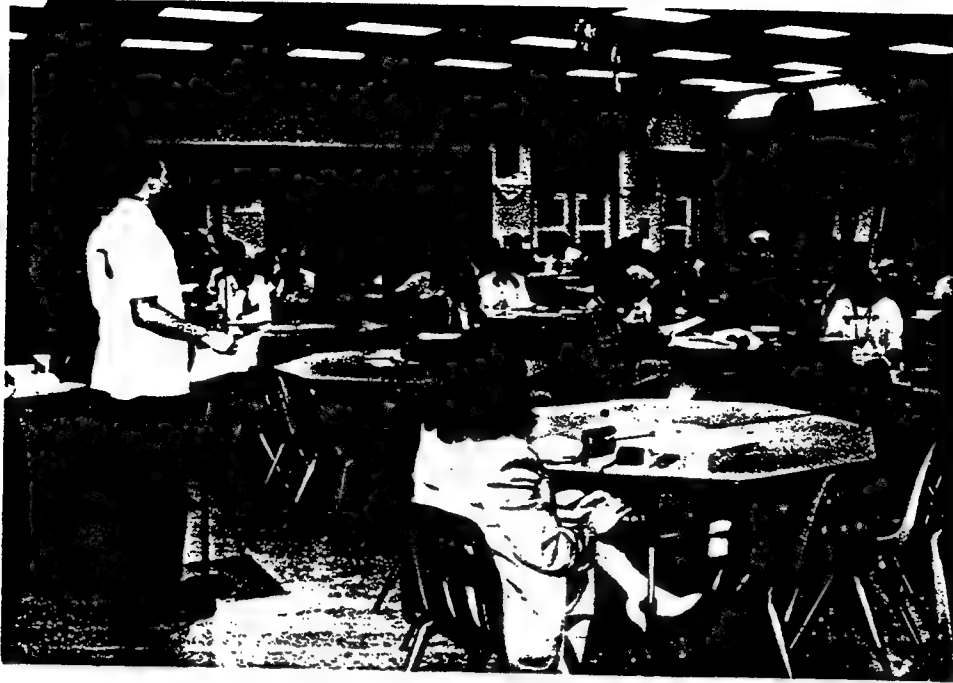


Illustration 1. Cafeterias with a lunch-style set up provided an informal atmosphere that was conducive to a workshop.

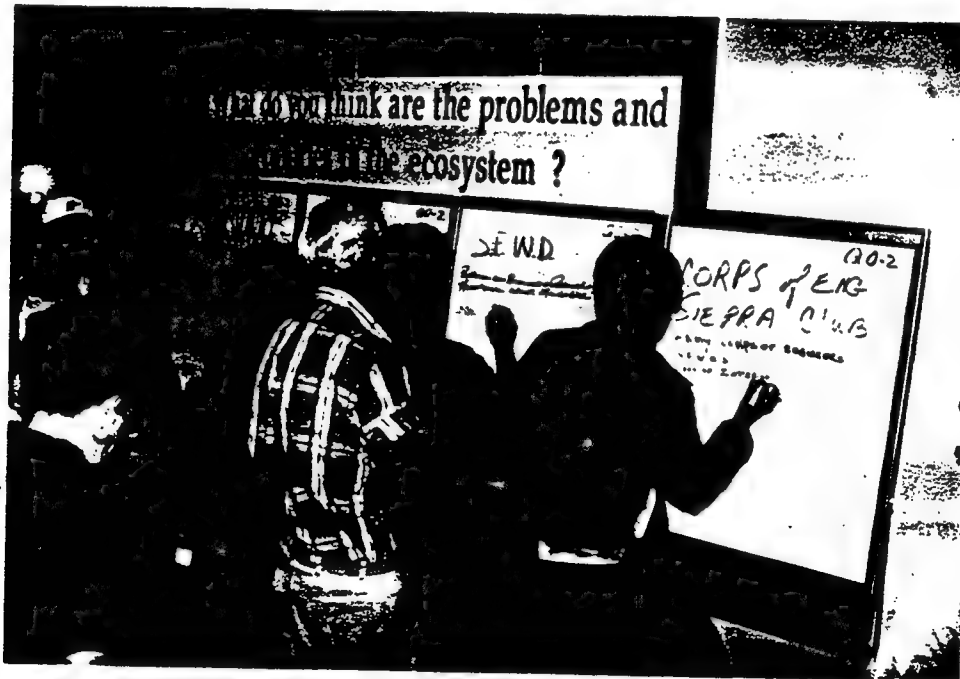


Illustration 2. "Everybody gets to write on the walls." Depending on the size of the crowd three to four flip charts were placed side by side. After the question was asked by the moderator, it was displayed above the flip charts. Three groups of these flipcharts were used, one group for each question.

TABLE 1 - LARGE GROUP RESPONSE TECHNIQUE STEPS

Step 1 - Preparation.

- Prepare meeting questions.
- Prepare work sheets (optional).
- Prepare moderator's script (optional).
- Select meeting site.

Step 2 - Set-Up.

- Set-up flip charts.
- Provide attendees with materials.

Step 3 - Questions and Responses.

- Explain the procedure.
- State first question and write responses.
- Repeat question-response for remaining questions.
- Identify most important responses.

Step 4 - Wall Walk.

- Display responses.
- Prepare summary of responses.

Step 5 - Summary.

- Present and verify summary of responses.
- Discuss summary of responses.
- Collect responses (optional).

Step 6 - Analysis (optional).

TABLE 2 - LARGE GROUP RESPONSE TECHNIQUE INGREDIENTS

MATERIALS

- flip chart paper (stands optional)
 - minimum = 1 chart per question
 - recommended = 3 charts per question
- sign

Each set of flip charts should be clearly marked with the question to be responded to on that set of charts.
- markers
 - minimum = 1 marker per flip chart
 - recommended = 3 markers per flip chart
- tape (optional)
 - minimum = 1 roll of masking tape or push pins/thumb tacks
- work sheets (preprinting optional)
 - minimum = 1 worksheet for each attendee
- pencils/pens
 - minimum = 1 pencil or pen for each attendee

ROOM

In addition to an adequate number of seats, lighting, noise control:

- writing surfaces
- areas for charts
- ease of movement around room

COMPONENTS

- questions
 - minimum = 1 question
 - recommended = 3 questions
- moderator's instructions script (optional)

TABLE 3 - EVOLUTION OF QUESTIONS

31 August 1993

- What are the problems and opportunities in the study area?
- How do you know there is a problem?
- How will you know when it is fixed?

8 November 1993

- What are the important resources in the area?
- What are the resource problems and opportunities?
- How do you know about the problems and opportunities?
- How would you measure successful restoration?

22 November 1993

- What are the important resources in the South Florida ecosystem?
- Do you think there are any problems and opportunities in the ecosystem?
- What would a successful restoration of the ecosystem look like?

1 December 1993

- What are the important resources in the South Florida ecosystem?
- What do you think are the problems and opportunities in the ecosystem?
- How will you recognize successful restoration of the ecosystem?

15 December 1993 (from transcript of Fort Lauderdale workshop)

- "...what do you think are the most important resources that we have here in south Florida?"
- "What do you think are some of the problems and opportunities here in the south Florida ecosystem?"
- "...how would you recognize successful restoration, what does that mean to you?"

TABLE 4 - MOST COMMON RESPONSES TO WORKSHOP QUESTIONS

workshop location and date	most common responses to questions		
	#1 - What are the important resources in the South Florida ecosystem?	#2 - What do you think are the problems and opportunities in the ecosystem?	#3 - How will you recognize successful restoration of the ecosystem?
Suwannee, FL Dec. 6, 1993	<ul style="list-style-type: none"> ● water ● Everglades ● clean water ● St. Lucie estuary ● Indian River lagoon 	<ul style="list-style-type: none"> ● growth ● St. Lucie 	<ul style="list-style-type: none"> ● balance ● biodiversity ● managed growth
Okeechobee, FL Dec. 7, 1993	<ul style="list-style-type: none"> ● people 	<ul style="list-style-type: none"> ● government agencies 	<ul style="list-style-type: none"> ● balance ● leave Kissimmee alone
Ft. Myers, FL Dec. 13, 1993	<ul style="list-style-type: none"> ● water ● wildlife 	<ul style="list-style-type: none"> ● pollution ● ecosystem restoration 	<ul style="list-style-type: none"> ● water ● restoration of wildlife habitats
Ft. Lauderdale, FL Dec. 15, 1993	<ul style="list-style-type: none"> ● people and families ● water ● ecosystem 	<ul style="list-style-type: none"> ● population growth ● opportunity through coexistence between environment and development 	<ul style="list-style-type: none"> ● healthy habitat ● water quality ● people ● balance
Tavernier, FL Dec. 16, 1993	<ul style="list-style-type: none"> ● Florida Bay water quality ● coral reefs 	<ul style="list-style-type: none"> ● lack of fresh water in Florida Bay 	<ul style="list-style-type: none"> ● clean, fresh water
Local Governments Workshop, Dec. 20, 1993	<ul style="list-style-type: none"> ● water ● Biscayne Bay ● wetlands ● people ● quality of life 	<ul style="list-style-type: none"> ● water management 	<ul style="list-style-type: none"> ● balance ● quality of life ● growth ● ecosystem
Miami/Coral Gables, FL Dec. 20, 1993	<ul style="list-style-type: none"> ● people ● families ● agriculture ● clean water ● Everglades 	<ul style="list-style-type: none"> ● overpopulation ● loss of wetlands ● water quantity and quality 	<ul style="list-style-type: none"> ● healthy ecosystem ● balance ● jobs ● sustainable development

TABLE 5 - PUBLIC CONCERNS

Most people identified concerns about:

- ecosystem
- growth

Many people identified concerns about:

- water quality
- water supply
- balance
- "they're the problem"

Some people identified concerns about:

- flood control
- recreation
- economy
- social considerations

Reference: U.S. Army Corps of Engineers 1994c.

TABLE 6 - WORKSHOP PROFILES

workshop location and date	type of meeting room	total number of workshop attendees	length of workshop
Stuart, FL Dec. 6, 1993	cafeteria	90	3 hours
Okeechobee, FL Dec. 7, 1993	cafeteria	140	2.5 hours
Ft. Myers, FL Dec. 13, 1993	cafeteria	45	2.5 hours
Clewiston, FL * Dec. 14, 1993 (morning)	meeting hall	300	3 hours
Clewiston, FL * Dec. 14, 1993 (evening)	auditorium	600	4.5 hours
Ft. Lauderdale, FL Dec. 15, 1993	cafeteria	320	4.75 hours
Tavernier, FL Dec. 16, 1993	cafeteria	240	3.5 hours
Homestead, FL * Dec. 17, 1993	meeting hall	20	2 hours
Local Government (Miami) Dec. 20, 1993	cafeteria	45	2 hours
Miami/Coral Gables, FL Dec. 20 1993	cafeteria	400	5 hours
TOTAL		2200	32.75 hours

* Meeting Part II (large group response technique) was not conducted at these meetings.

TABLE 7 - TIME REQUIREMENTS

Approximate durations of the large group response technique steps conducted during the actual course of the Round One workshops were:

Step 3 - Questions and Responses.

Moderator explained procedure.	5 minutes
Moderator stated question #1 (identify important resources) and attendees wrote responses.	5 minutes
Moderator stated question #2 (identify problems and opportunities) and attendees wrote responses.	5 minutes
Moderator stated question #3 (describe successful restoration) and attendees wrote responses.	5 minutes
Moderator asked for identification of "most important" responses and attendees identified "most important" responses.	5 minutes

Step 4 - Wall Walk.

Attendees wrote "most important" responses on flip charts, and moderator summarized results as the last responses were written. Duration of this step was a function of the number of attendees, as well as the amount of interaction desired among the participants and the Study Team.	15-30 minutes
--	---------------

Step 5 - Summary.

Moderator presented and verified a summary of the "most important" responses, and attendees commented on and discussed results. Duration of this step was a function of the nature of the results.	5-15 minutes
--	--------------

TOTAL TIME 45-70 minutes

TABLE 8 - WORKSHOP PARTICIPATION

workshop location and date	total number of workshop attendees	work sheets		public speakers		ratio of work sheets to speakers
		total number of work sheets collected	number collected as a % of attendees	total number of speakers	number of speakers as a % of attendees	
Stuart, FL Dec. 6, 1993	90	64	71%	19	21%	3.4 : 1
Okeechobee, FL Dec. 7, 1993	140	82	59%	12	9%	6.8 : 1
Ft. Myers, FL Dec. 13, 1993	45	35	78%	7	16%	5.0 : 1
Ft. Lauderdale, FL Dec. 15, 1993	320	248	78%	34	11%	7.3 : 1
Tavernier, FL Dec. 16, 1993	240	156	65%	33	14%	4.7 : 1
Local Government (Miami), Dec. 20, 1993	45	28	62%	12	27%	2.3 : 1
Miami/Coral Gables, FL Dec. 20 1993	400	243	61%	47	12%	5.2 : 1
TOTAL	1280	856	67%	164	13%	5.2 : 1

TABLE 9 - PLANNING OBJECTIVES AND CONSTRAINTS

Planning Objectives

- Increase the total spatial extent of wetlands.
- Increase habitat heterogeneity:
 - Reestablish lost historic communities.
 - Reestablish relative balance among historic community types.
 - Restore connections within and among community types.
 - Reduce the extent of non-native plants and animals.
- Restore hydrologic structure and function:
 - Restore sheet flow.
 - Increase dynamic storage capacity.
 - Restore hydrologic linkages.
 - Restore more natural hydropatterns.
 - Restore more natural water delivery characteristics to estuaries and bays.
- Restore water quality conditions:
 - Restore more natural salinity characteristics in estuaries and bays.
 - Restore more natural quality characteristics.
- Improve the availability of water:
 - Improve efficiency in water use.
 - Improve water supply.
- Reduce flood damages on Seminole and Miccosukee tribal lands.

Planning Constraints

- Protect threatened and endangered species.
- Deliver water that meets applicable water quality standards.
- Minimize salinity intrusion into freshwater aquifers.
- Minimize loss of services provided by the C&SF Project:
 - Minimize loss of water supply.
 - Minimize loss of existing flood damage protection.
 - Minimize loss of navigation opportunities.
- Minimize regional and local social and economic disruption:
 - Minimize disruption of communities.
 - Minimize disruption of jobs.
 - Minimize disruption of agriculture, tourism, commercial fishing, and other businesses.

Reference: U.S. Army Corps of Engineers 1994c.

**TABLE 10 - PUBLIC CONCERNS AND RESULTING PLANNING
OBJECTIVES AND CONSTRAINTS**

Public concerns about the ECOSYSTEM resulted in:

- Objective #1 - Increase the total spatial extent of wetlands.
- Objective #2 - Increase habitat heterogeneity.
- Objective #3 - Restore hydrologic structure and function.
- Constraint #1 - Protect threatened and endangered species.

Public concerns about WATER QUALITY resulted in:

- Objective #4 - Restore water quality conditions.
- Constraint #2 - Deliver water that meets applicable water quality standards.

Public concerns about WATER SUPPLY resulted in:

- Objective #5 - Improve the availability of water.
- Constraint #3 - Minimize salinity intrusion into freshwater aquifers.
- Constraint #4 - Minimize loss of water supply provided by the C&SF Project.

Public concerns about FLOOD CONTROL resulted in:

- Objective #6 - Reduce flood damages on Seminole and Miccosukee tribal lands.
- Constraint #4 - Minimize loss of existing flood damage protection provided by the C&SF Project.

Public concerns about RECREATION resulted in:

- Constraint #4 - Minimize loss of navigation opportunities provided by the C&SF Project.

Public concerns about the ECONOMY resulted in:

- Constraint #5 - Minimize regional and local disruption of jobs, and disruption of agriculture, tourism, commercial fishing, and other businesses.

Public concerns about SOCIAL CONSIDERATIONS resulted in:

- Constraint #5 - Minimize regional and local disruption of communities.

Public concerns about GROWTH, BALANCE and "THEY'RE THE PROBLEM" did not result in objectives or constraints, but were addressed through other study means.

Reference: U.S. Army Corps of Engineers 1994c.

APPENDIX A - WORKSHEET

Central and Southern Florida Comprehensive Review Study - Round 1 Workshops

Location _____

1

2

3

APPENDIX B - SUMMARY OF PUBLIC CONCERNS

Ecosystem. In general, the public recognized a decline in both the quality and extent of the South Florida ecosystem, particularly in the historic Everglades. They noted changes in habitats, such as the sawgrass, mangroves, and other native wetland habitats, as well as changes in hydrology and other physical characteristics. Many people believe that changes in historic sheetflow and hydropatterns brought about by man's water management activities, including the Central and Southern Florida Project, are important causes of ecosystem decline. People expressed concern about many native fish and wildlife species, such as herons, alligators and lobsters, as well as endangered species, such as the Florida panther, manatee, and wood storks. The adverse effects of invasive non-native species, such as melaleuca, Brazilian pepper and Australian pine, were also of concern to many.

Growth. Another major public concern was growth of the human environment of South Florida, particularly the perceived problems of overpopulation and overdevelopment and their effects on the ecosystem and water resources.

Water quality. The public expressed concerns about environmental pollution, including water and air quality and solid waste disposal. Water quality concerns focused on six major areas: pollution of Lake Okeechobee, regulatory releases from Lake Okeechobee, outflow from the Everglades Agricultural Area, salinity in Florida Bay, urban water quality, and system-wide mercury pollution.

Water supply. Public perceptions concerning water supply problems and opportunities recognized three main water users: the environment, the urban areas and agriculture. Problems identified included conflicting demands among the water users, the waste of water, an inadequate water system, the need to increase the supply of water, and the need for water conservation to reduce water demands.

Balance. A major public concern dealt with the issue of balance. This idea was expressed in two general ways. First, many people believed that ecosystem restoration in South Florida will require balance between "man and nature"; many people spoke about the need for "sustainable development". Second, achieving balance will require the area's interest groups to cooperate and work together.

"They're the problem". In answering the question "What do you think are the problems and opportunities in the ecosystem?", a considerable number of people identified other people, other groups, other areas, other agencies, or others in general as responsible for problems in the South Florida ecosystem - in short, "they're the problem". Public responses about who they believed is responsible for problems fell into two categories: government and others. Many people from the Kissimmee River area, the Everglades Agricultural Area, and the urban east coast simply asked to be "left alone".

Flood Control. Public concerns about flood control generally centered on preservation of existing flood protection provided by the Central and Southern Florida Project, in balance with the needs of the ecosystem. The Miccosukee and Seminole Indian Tribes expressed a need for improved flood protection on tribal lands.

Recreation. Several people described recreational navigation problems on the Okeechobee Waterway (St. Lucie Canal - Lake Okeechobee - Caloosahatchee River), particularly if water levels in the lake are changed.

Economy. Public statements about problems and opportunities in the south Florida economy covered the link between the economy and the ecosystem, major regional businesses - agriculture, commercial fishing and tourism - jobs, and the role of government. While many people recognized the need for a healthy ecosystem to support the region's economy and jobs (particularly tourism and Florida Bay), others were concerned that potential restoration projects would displace farms and other businesses and related jobs.

Social Considerations. Public comments covered many social considerations, including concern about communities, people and social issues. As with the economy, there was some concern about potential restoration projects displacing communities and people.

Reference: U.S. Army Corps of Engineers 1994a.

APPENDIX A2

EVERGLADES PUBLIC WORKSHOPS

TRANSCRIPT OF PUBLIC WORKSHOP
MEETING
DECEMBER 15, 1993
FORT LAUDERDALE, FLORIDA

This is an extract from the transcript of the sixth public workshop. It covers the opening of the meeting and reports how the exercise actually proceeded.

Page 1

Page 3

CORPS OF ENGINEERS
CENTRAL & SOUTHERN FLORIDA PROJECT
COMPREHENSIVE REVIEW STUDY

TRANSCRIPT OF
PUBLIC WORKSHOP MEETING

DATE: DECEMBER 15, 1993

TIME: 7:00 - 11:45 P.M.

PLACE: Croissant Park Elementary School
1800 SW 4th Avenue
Fort Lauderdale, Florida

1 STUART APPELBAUM: Just a couple of
2 administrative things, if we can get
3 everybody to sit down. I know we've got a
4 crowd. We have registration cards. If you
5 haven't filled out a card and if you're not
6 on our mailing list, please fill it out. If
7 you don't have one, please raise your hand.
8 Greg will be around to give you one. Again,
9 it's for our mailing list.

10 We have got name tags on every table.
11 Everybody can take the opportunity to
12 identify yourself. This setup is kind of
13 informal. We hope to have a good dialogue
14 between people.

15 Good evening. It's good to see you all
16 here tonight. I recognize some faces from
17 some of the other meetings. It's good to see
18 you back again.

19 As many of you probably know by now,
20 this is not your typical Corps of Engineers
21 public meeting. It's a little bit different.
22 We think that's good. We think that's useful
23 for all of you and especially for all of us
24 to get the various viewpoints and get
25 information that will help us that as we

Page 2

Page 4

MEMBERS PRESENT:

Stuart Applebaum
Carol Sanders
Kenneth Orth

Dave Wessley
Jim Weaver
Wille Kitchens
Joan Browder
Joe Carroll

1 conduct our study.

2 My name is Stu Appelbaum. I'm the
3 Chief of the Central and Southern Florida
4 Study Section for the Corps of Engineers, and
5 I'm the manager for the Corps of Engineers
6 for its study of the Central and Southern
7 Florida project. It's good to see you all
8 here tonight.

9 Now, this workshop is designed to help
10 us identify the important resource, and the
11 problems and opportunities in the south
12 Florida so that we can conduct our study.

13 Now, let me spend a couple of minutes
14 and tell you about what you can expect and
15 what you won't expect tonight because this is
16 a little bit different than many of you are
17 accustomed to the Corps of Engineers'
18 meetings. So if we can get the lights.

19 We are not here to talk about the
20 lawsuit. There's a lot of interest,
21 certainly, in the lawsuit. I'm not part of
22 the negotiations. Don't really know what's
23 happening except the newspaper clippings I
24 read and the scuttlebutt around the office.
25 I'm not a part of the negotiations.

Page 5

Page 7

I can tell you whatever comes out ultimately from the lawsuit negotiations obviously impact my study, and so I'm keenly interested in whatever gets settled, whether it's next week, next month or next year, impacts the study. But we are not here to talk about the lawsuit tonight.

Well, you don't see a traditional Corps of Engineers hearing officer tonight, you know, the Colonel in the green suit that gives a speech at the beginning and sits down and takes testimony. You got me instead tonight. Better or worse.

I'm wearing a T-shirt tonight so that you can identify me as a member of the study team. The other members of my staff that are part of the study team are also wearing these T-shirts. That's because the way the format is setup, it allows you to identify who we are and we want you to come over and chat with us tonight. We are in T-shirts so you can find us. We paid for these ourselves, by the way.

We don't have a Corps of Engineers stenographer here tonight. Now, there is a

1 what you have got to say and get the
2 important notes down here. And we take that
3 back and they are marked what meeting they
4 are and we do that.

5 We also take the opportunity, just
6 while I am talking about why this meeting is
7 different today, to acknowledge somebody
8 here. I'd like to acknowledge the presence
9 of Congressman Hastings, who is taking the
10 time to be with us tonight and appreciate you
11 taking the time, Congressman, to be with us.

12 Many of you have asked us what is the
13 Corps of Engineers' restoration plan. So I'm
14 pleased to tell you about our restoration
15 plan. Here it is. A blank sheet of paper.
16 See those yellow sheets you got on your table
17 tonight. You're going to help start filling
18 out the information that goes on that blank
19 sheet of paper. The Corps of Engineers has a
20 blank sheet of paper.

21 The information you give us tonight and
22 over the course of the next few weeks,
23 there's going to be some take-home stuff so
24 you can feel free to jot information down
25 and, you know, send it back to us at a later

Page 6

Page 8

rapher. She's not employed by the Corps of Engineers. We are not here to take testimony. We're here to listen to what you have got to say and get input from you in various formats to help us in our study. So we are not taking stenographer's testimony tonight.

3 Some people in the past have kind of
4 had a problem with the fact that we don't
5 have a stenographer, as if that implies that
6 we are not here to listen to you. As you
7 know, we have flip charts around the room.
8 We have information on the table we have
9 asked you to fill out. When we get to the
10 public comment portion of the meeting, we are
11 going to be taking notes. We are listening
12 to what's going on and we are taking notes.
13 We are just not reading four hundred pages of
14 transcripts. We are listening to what you
15 say and getting the gist of it down on paper
16 so that we understand what you're trying to
17 tell us.

18 don't know if any of you have read
19 testimony in transcripts before. They
20 can get rather boring. I'd rather listen to

1 point, that's what's going to start filling
2 out the information that we need in that
3 blank sheet. So here, this blank - this
4 somewhat blank sheet that's yellow is what's
5 going to fill in that blank sheet.

6 There is no Corps of Engineers' report.
7 That will be in November of 1994. Our first
8 phase of reconnaissance study will be
9 complete in November of '94, we will have a
10 report at that point. We don't have a report
11 today.

12 Now, many of you are keenly aware of
13 this report. This is a report of the science
14 subgroup, folks over here who will be talking
15 to you later tonight created that report.
16 It's not a Corps of Engineer's report. There
17 will be input from the Corps of Engineers
18 when it gets finalized, along with the input
19 we are receiving here and from the other
20 meetings we've been conducting.

21 We've been on the road for a week and a
22 half now. We will end up next Monday night.
23 We are going around the entire study area to
24 hear what you have got to say to us and to
25 help us create that report.

1 We are not here to do a lot of talking
2 tonight. We're here to do some listening.
3 Let me tell you what to expect. I'm probably
4 about five minutes into my presentation. I
5 got about another ten minutes to go. Over
6 the next ten minutes I'm going to tell you a
7 little bit about our study. Following that,
8 we are going to get into the workshop portion
9 of the evening. That's where we ask your
10 cooperation. That hour is probably the most
11 important hour for me to have a successful
12 study.

13 We will have -- we will be asking you
14 some questions to fill out, and that will
15 take about twenty minutes. And over the next
16 half hour, you're going to be able to share
17 your views with the rest of the people in
18 this room and that will provide us, the Corps
19 of Engineers, critical information for me to
20 do a successful study.

21 The third segment of the evening will
22 be a report about ten minutes or so in length
23 from the science subgroup. We are going to
24 talk about this report, how it was created
25 and what went into it.

1 After that, we are going to listen to
2 you all. People have signed up to speak
3 tonight, and that's the portion of the
4 program where we will hear what you have got
5 to say. Comments, questions, whatever you
6 got to say, we're here to listen.

7 Now, as you came in tonight you
8 probably saw that we have a table out with a
9 lot of handouts and information that's been
10 supplied by some of the federal agencies and
11 by the South Florida Water Management
12 District, Fish and Wildlife Services has also
13 provided some litter bags, which also provide
14 a good way to stuff all that stuff that you
15 received from us tonight and take it home
16 with you.

17 Okay. Let me talk about the Corps of
18 Engineers' study. That's a map of Florida
19 back in 1856. We've highlighted in kind of a
20 light blue what was the historic Everglades
21 system as it was mapped in the 1850s, shows
22 the extent of the Everglades system.

Following hurricanes in the 1920s, the
Corps of Engineers built flood control works
25 around Lake Okeechobee in the interest of

1 flood control.

2 Following draughts in 1930s and more
3 hurricanes in the 1940s, the Corps of
4 Engineers constructed the Central and
5 Southern Florida project.

6 And that's the project that you see
7 here today, the map with all the red and
8 green lines are the features of the federal
9 flood control project. They include about a
10 thousand miles of canals and levees, sixteen
11 major pump stations and about a hundred and
12 fifty structures. It does not include all
13 the local drainage district works that have
14 been constructed to supplement that project.
15 That map only shows the federal features.

16 That project was basically designed to
17 do flood control and water supply and water
18 control. And it does exactly what it was
19 intended to do. Very successful in doing
20 that.

21 So if it's successful doing that, why
22 are we here tonight? Why is the Corps of
23 Engineers doing a study? Well, we didn't
24 know when that project was first put together
25 in the late 1940s the impact that project

1 would have on the ecosystem. We didn't know
2 that all five million people would be living
3 here in south Florida and more on the way
4 every day. So things have changed since the
5 1940s.

6 So Congress has asked the Corps of
7 Engineers to do a study to look at the
8 existing project, that entire sixteen
9 thousand square mile area and the thousand
10 miles of canals, et cetera, et cetera. They
11 have asked us to look at that whole project
12 and determine the feasibility of modifying
13 that project to restore the Everglades and
14 Florida Bay ecosystems while still
15 maintaining and providing for the other water
16 related needs of the project, such as flood
17 control and so on. That's a tough balancing
18 act, but that's my job. That's why we are
19 doing the study.

20 Okay. If we -- that's enough slides.
21 You -- I think you really have four questions
22 that you want to ask me, so let me take a
23 shot at them. You really want to know, what
24 are we going to do? What's it going to cost?
25 Who is going to pay? And when are we going

Page 13

Page 15

1 to do it?

2 First question. What are we going to
3 do? Well, don't know. Don't have a plan.
4 blank sheet of paper, the Corps of
5 Engineers, so I can't tell you what the plan
6 is because we don't have one. That's what
7 the study is about to determine what that
8 plan should be.

9 What's it going to cost? Obviously, if
10 I don't have a project, I don't have a plan,
11 I don't know what it's going to cost. We
12 will have to figure that out when we identify
13 what the plans are.

14 Who is going to pay? Well, that's the
15 easy one. We are all going to pay. You're
16 going to pay, I'm going to pay, we are
17 taxpayers. Now, it will be decided later on
18 who pays what percentage, federal government
19 is going to pick up some of the tab, water
20 management is going to pick up some of the
21 tab. That will be decided later on. Suffice
22 it to say that we are all going to pay.

23 When we think about the cost of what
24 that project is going to be, whatever it is,
25 we also need to think of the cost of not

Page 14

1 ing anything because when you think about
2 project costs, you got to compare them to the
3 cost of not doing something. If we don't do
4 something about the ecosystem, we need to
5 acknowledge that cost and determine what that
6 cost is to future generations.

7 Last question is when is it going to
8 happen? Well, Corps of Engineers, as you
9 know, sometimes good and sometimes bad, moves
10 pretty slow. We think that's kind of
11 deliberate because we are in accordance with
12 all the laws, regulations and all the things
13 we have to go through to dot every "i" and
14 cross every "t" but I can tell you also in
15 addition to that, it took a lot of years for
16 that project to develop. It's a complex
17 ecosystem. We've been tinkering with it
18 piecemeal here and there at times to put
19 bandaids on things and Congress has asked us
20 to take a holistic look at the project and
21 that's a lot more complicated than just
22 looking at it a piece of time. That's going
23 to take us some time to figure out what is
24 the right thing to do, and that's what the
25 study is all about. That's the first part of

1 the meeting. Got through that pretty well on
2 schedule.

3 Let me go onto the next part of the
4 meeting. Next part of the meeting is -- next
5 hour is probably, as I said, one of the most
6 important things that you can help us with.
7 I have got yellow sheets on all the tables.
8 I have got pencils. Everybody is going to
9 need a yellow sheet and a pencil. If you
10 don't have one, raise your hand, somebody
11 will be around.

12 Some of you may think this is a little
13 bit of fun. Some of you may think that we
14 are, you know, insulting your intelligence.
15 It's not our intent. We are very serious
16 about this. We put this in a format we think
17 will provide us information in a format that
18 we can readily use as part of our study.

19 We've got some people, Liz, Ken,
20 there's some folks with their hands up we
21 need to get yellow papers out to them,
22 pencils.

23 We will make sure that everybody has
24 got one. Everybody gets a chance. Has
25 everybody got one? We have got everybody

Page 16

1 taken care of? Good.

2 We've got this yellow form with three
3 boxes on them marked one, two on three. I'm
4 going to ask you three questions. Those
5 questions, we are going to take about five
6 minutes each to answer them and there's a
7 fourth part, take another five minutes so I
8 got four parts taking five minutes so it's
9 going to take about twenty minutes to get
10 through this. And then we are going to ask
11 your cooperation to get some information on
12 the boards and I'll explain that a little bit
13 later.

14 Okay. Now, these questions let me
15 make -- Ken? Anybody need a pencil? Keep
16 your hand up if you need a pencil, we will
17 get somebody right around to get them to you.

18 Now, let me start out by telling you
19 that these questions focus on the ecosystem
20 because the primary focus of this study is
21 restoration of the ecosystem while still
22 trying to maintain the other water related
23 demands. So our questions are designed to
24 get at some of the answers we need about the
25 ecosystem. But, if you notice the back of

1 the sheet, it's a big block called other
2 comments. Feel free any time tonight to put
3 whatever you would like down in the block.
4 That's your block.

5 We are going to read every one of these
6 sheets. We are going to ask you to turn them
7 in and we are going to read them all. Any
8 time you think there's something that we are
9 not addressing in one of these three blocks
10 or you got something else on your mind that
11 you want to let us know about it, you got
12 that back of the paper, so you just write it
13 down. We are going to read them all. You
14 write it down.

15 Now, we are also going to give you a
16 sheet to take home, a green sheet. It's
17 going to have the three questions written on
18 it, too, so you can remember what the
19 questions are, or if you think of something
20 on the drive home tonight or something
21 tomorrow morning, you want to let us know,
22 just put some more information on the green
23 sheet and send it back to us. If you feel
24 like you remember something later that you
25 didn't get on the yellow sheet you got an

1 resources in the South Florida ecosystem.
2 Question's up on the board over there. We've
3 got some flip charts. Just have got it up
4 here too. What are the important resources.
5 Let's go for three minutes.

6 Like I said, we are going to give you
7 the green sheet to take home so if there's
8 something that you think of later on that you
9 didn't get, you know, didn't remember or
10 didn't get a chance to put down, you have got
11 a second chance when you go home to fill it
12 out and send it to us. It's just as
13 important as this stuff that we are going to
14 collect later.

15 All right. Second question. I don't
16 live in south Florida, but every week I get a
17 stack of news clipping from all the
18 newspapers about what's going on down here,
19 what the problems down. Everybody has got an
20 opinion about what's right and what's going
21 on here. What do you think are some of the
22 problems and opportunities here in the south
23 Florida ecosystem? Again, block number two.
24 One-word answer, phrase, sentence, paragraph,
25 whatever you would like, tell me what you

1 opportunity later tonight or tomorrow or next
2 week send them in to us. We are going to
3 read them all, too.

4 You don't have to sign these sheets.
5 It's not a test. We are not asking people to
6 sign them. This is information you're
7 providing to us and we appreciate you taking
8 the time to do that.

9 Let's go to the first question, let's
10 get that moving. We all live in the United
11 States and we take pride in the national
12 resources that we have in our country, bald
13 eagle, grand canyon, giant red woods, they
14 are all nationally recognized resources.

15 Now, we have other resources here in
16 South Florida. What we want to know in block
17 number one, I'm going to give you three
18 minutes to think about what do you think are
19 the most important resources that we have
20 here in south Florida. You can get them down
21 as one word, a phrase, a sentence, a
22 paragraph, whatever you would like. One
23 answer, five, ten, fifteen, it's your block.

24 So I'm going to give you three minutes
25 to think about what are the important

1 think are the problems and opportunities.
2 You want to give one answer, five, ten,
3 fifteen, whatever, it's between you and me.
4 So the next three minutes, block number two,
5 tell me about what you think the problems
6 and opportunities are.

7 I hear somebody needs a little more
8 time.

9 A VOICE: Yes.

10 STUART APPELBAUM: Okay. All right.
11 Last question, let's talk about success.
12 Different examples of success depend on the
13 concept and if you're a football team, an
14 example of success is getting into the Super
15 Bowl. For me, personally, as a parent,
16 getting my kids into college is my definition
17 of success for me personally.

18 So if we fixed all the problems and
19 opportunities that you identified in the
20 second block, what would success look like,
21 what would it look like to you personally,
22 look like, smell like, sounds like?

23 So the third block, tell me how would
24 you recognize successful restoration, what
25 does that mean to you?

Page 21

Let's take three minutes and you tell me about success.

^ -vbody need more time?

e got a request. We've got people here that speak Spanish. I don't speak Spanish. In the interest of fairness, is there anybody here that would be willing to translate to help the folks that speak Spanish? They would like to fill out the questions and answers, too, but they need help filling - having the questions translated in Spanish and their responses that they can put down on paper. If somebody would like to help, somebody that could speak Spanish? Okay. If somebody - as the evening develops in the next few minutes, if somebody is willing to do that, please come up to the front because we would like to be fair and have everybody that's here tonight - Carol, would you - okay. Thank you.

Okay. Now we come to the most important part. You have all done a great job telling me about what's important to you in these three blocks. That's real important. All the answers are good answers.

Page 22

's no right answers, no wrong answers. What's important to you personally, and that's what we are trying to get at. We want to know about what you feel.

But what I want you to do is in each one of these blocks, I want you to take the answer that you feel if you had to just pick one answer that you gave in each of those blocks, what's the single most important thing to you, I want you to circle that answer. So in the block number one of important resources, circle the one most important resource to you personally.

And in the problems and opportunities of block two, circle the one answer that you think is the most important problem and opportunity to you.

The third block, the most important indication of success, circle that. Just - if you only had to pick one, just what would be the one that you would pick as the most important to you.

(Thereupon, a speaker from the audience, Mike Irey, spoke to the audience in Spanish.)

Page 23

STUART APPELBAUM: Thank you. We really appreciate that, I think that's great.

Okay. Everybody done? Now, no more questions tonight. That's it. You don't have to answer any more questions.

Let me tell you what we are going to do for the next half hour. Everybody has had the opportunity to answer questions, we are going to ask you to turn these in later and we are going to read every one of them. Now is the time that you can share what's most important to you with the rest of the folks here.

I want you to go up, we've got three sets of boards marked, one, two and three around the back of the room. So for the next half hour - we've got markers at those boards - I want you to take the answer that you circled and go over to the boards so the answer that you circled for the most important resource, go to the board, grab a pen, jot it down. Same thing in two and same thing in three.

You don't have to do them in order because it may get crowded at one board or

Page 24

the other. Every answer is a good answer.

If you see somebody else has written the answer down, don't be shy, write it again.

I'd like to - if fifty people have the same response that's real important to me. It tells me something about what's most important to this audience tonight.

So - and there's no right and wrong answers. Your answer is the right answer for you. So for the next half hour, go ahead to the boards, take the answers that you have circled and jot them down. We will share them with everybody later so let's do that over the next thirty minutes.

(A thirty-minute recess was had.)

MR. APPELBAUM: Thank you. Now, we've been having meetings since last week at various locations. Each of those meetings is kind of characterized by each geographic region and the unique interests at every one. I want to tell you something. This is the first meeting we've had in the series of meetings we've had, and they have all been good meetings, the first meeting where I have got a real diversity of interests here. And,

1 you know, last night when we got done with
2 the meeting, we said, of all the sub-meetings
3 we have scheduled, if we just had one
4 meeting, one meeting out of all of them where
5 we can get all the different interests
6 together talking to each other, we would be
7 successful.

8 That's tonight, folks. We are not
9 going to get you all to agree on everything.
10 If I could do that, I'd be in a different
11 business. But, the point is, what I'm going
12 to tell you in a couple of minutes, there's
13 things that we can all agree on. We all have
14 our interests but there's things we can agree
15 on. What this is about is finding where that
16 common ground is.

17 Let me tell you what I saw going
18 through the boards here real quick. My
19 question on the important resources, let me
20 tell you -- I don't want to say there's a
21 number one answer. Let me tell you what I
22 saw the most of as we went around. I saw
23 people and families. I saw water and the
24 ecosystem. That's a pretty diverse set of
25 answer, but if I had to characterize what I

1 other to agree on things, but at least you're
2 talking to each other.
3 So I want to tell you how pleased I am
4 that you all filled this out tonight because
5 I really appreciate getting input. I'm glad
6 you did it. And I am glad you took the time
7 to put the stuff on the walls and to talk to
8 each other. And I'm done preaching.

9 Okay. Move onto the third segment of
10 the evening. I said we are going to have a
11 ten-or-so-minute presentation by the science
12 groups. Let me tell I a little bit about how
13 that's going. You have all taken the time
14 tonight, spent the last hour to fill this
15 out.

16 By the same token, back a couple of
17 months ago, the Secretary of the Interior,
18 Bruce Babbitt put together a task force at
19 the Washington level to deal with restoration
20 of the South Florida ecosystem. It's one of
21 the centerpieces of his being in the
22 administration.

23 And as a result of that, a group was
24 put together from that task force, a Florida
25 based working group, to deal with some of

saw on the those boards, that's what I would
say.

3 Second one, problem, biggest trend I
4 saw problem wise, population growth. I saw
5 an opportunity listed, though, coexistence
6 between the environment and the development.
7 That's up there. Real important for everyone
8 to understand. That's what you have said to
9 each other.

10 Third answer, how will you recognize
11 successful restoration. There's a variety of
12 answers. There's a lot different things. I
13 saw healthy habitat and water quality. I saw
14 people and I saw balance. Maybe balance is
15 the thing we've got to talk about. It's real
16 important stuff.

17 Again, we are going to collect these.
18 We are not grading them. They are valuable
19 information to us. The stuff that's on the
20 walls, we are going to take that home with
21 us, too, because that's real important.

22 The important thing is you have all
23 shared with each other. I saw people having
conversations that don't normally talk to
each other. You may not have gotten each

1 these issues. They formed a science
2 subgroup, and they will give you a little
3 more detail. The Corps of Engineers,
4 basically, gave them questions very similar
5 to what you have answered and you have
6 provided us input. We asked the scientists
7 essentially the same questions. This is what
8 they came up with. That's their draft. I
9 know a lot of you have concerns about it and
10 we will discuss that. That's their answers
11 to these questions. This is an input source
12 to the Corps of Engineers, so is this.

13 Okay. What we are trying to get is
14 input from every group and every interest.
15 The only way the Corps of Engineers can make
16 a balanced decision is to hear from everybody
17 and we've got the tough job of trying to
18 balance it all. Does that mean you're all
19 going to be happy with everything that we do?
20 Probably not.

21 You are going to understand that we at
22 least tried to balance everything and to hear
23 everybody and deal with all the input we've
24 got.

25 So now, I want to introduce Brad Brown

APPENDIX A3

EVERGLADES PUBLIC WORKSHOPS

PUBLIC CONCERNS

This is an extract from final Reconnaissance Report of the Everglades study showing how the results of the December 1993 exercises were presented in a report.

II. PUBLIC CONCERNS

The first phase of the study's public involvement program was designed to determine the public's concerns. Ten public workshops were held in December 1993. This section of the appendix is a catalog of the public comments which have been grouped into ten areas. The complete inventory of public concerns may be found in the annex to this appendix.

ECOSYSTEM

Problems and Opportunities

Public statements about problems and opportunities in the south Florida ecosystem covered several general categories of concerns:

- Ecosystem in general
- Ecosystem areas
- Ecosystem characteristics
- Habitats
- Hydrologic and other physical characteristics
- Fish and wildlife species
- Endangered species
- Exotic and pest species
- Species life requirements
- Natural beauty

Ecosystem in General

Many people recognized the ecosystem in general as a concern. This included a global perspective of the ecosystem, with references to "the environment", "resources", "nature", "the planet", and "earth", as well as a system-level perspective in references to "watersheds" and "regions". Problems and opportunities included:

"The problem is the C&SF Project which serves its original purpose but has significantly contributed to the collapse of the South Florida ecosystem."

"Wetland loses and fragmentation have reduced the size and connectivity of freshwater components of the ecosystem. Restore spatial extent, connectivity, and heterogeneity in the system by bringing remaining wetlands under protection and reestablishing native vegetation."

"Get with the program and save this ecosystem before its too late. As Joe Podgor with Friends of the Everglades says, "Saving the Everglades is a test. If we pass, we get to keep the planet".

"Manage natural resources from a regional or watershed approach - rather than county by county or by other geopolitical boundaries."

Some people stated that they did not believe that it is possible to restore the ecosystem to what it once was believed to be. Some stated that the ecosystem was recovering from the effects of constructing the C&SF Project and other water management projects, and that it should be left alone and not disturbed any further:

"Trying to change the land and water flow back to what it was over 150 years ago to correct all Everglades National Park problems actual or perceived makes no sense. Even if you moved the millions of people and thousands of acres of farms out of south Florida, the plants, animals and water conditions would not likely revert back to what they were before man came to south Florida."

"Man should never mess with Mother Nature. Please leave it be. It did not work with the Kissimmee."

Ecosystem Areas

Problems and opportunities were recognized in both large areas of the south Florida ecosystem as well as in smaller, more specific sites throughout the ecosystem. Large areas that were identified included:

Kissimmee River (C-38)
Lake Okeechobee
Everglades Agricultural Area ("the EAA", "the Glades")
Water Conservation Areas (WCA)
Everglades National Park (ENP, "the Park")
Big Cypress National Preserve
Florida Bay ("the Bay", "the Keys")
East coast urban area ("the city")
Biscayne Bay
Atlantic Ocean

"Artificially lowering Lake Okeechobee to enhance bird populations that should be nesting in the Everglades - thereby sacrificing the most natural storage area."

"Loss of water storage and pollution from drainage of Everglades Agricultural Area."

"Increased water flow, both into and out of Lake Okeechobee and then through the Park and into Florida Bay. With increased water flow, no other restoration is needed."

"Too much water is being wasted through the southeast canal system to the Ocean. Not enough fresh water is reaching Florida Bay and Everglades National Park."

Specific watersheds and sites that were identified included:

The Acreage

Alligator Alley (Interstate 75)

Blockbuster Corporation Development ("Wayne's World")

C-23, C-24, C-25

Caloosahatchee River

Cork Screw Swamp

East Everglades

Eight and One-Half Square Mile Area

Fisheating Creek

Frog Pond

Hole in the Doughnut

Indian River Lagoon

Loxahatchee Estuary

Marco Island

Rocky Glades

Royal Palm

St. Lucie River

Tamiami Trail (U.S. Highway 41)

Taylor Slough

Wellington Jupiter Farms

"Problem" - Flood-prone farmlands in the Frog Pond, Eight and One-Half Square Mile Area, and Rocky Glades present barriers to holding canal levels at elevations beneficial to the Everglades.

"Opportunity" - Purchase and restore those lands as wetland buffers to Everglades National Park and groundwater recharge areas for urban well fields."

"Elevate all cross state highways; Alligator Alley is a dam - blocking all fresh water flow."

"Preserve the entire remains of the Loxahatchee Slough to maximize the size of connections among wetland communities, which will retain more water and enhance natural values of functioning wetlands."

Ecosystem Characteristics

Many people described desirable characteristics of the ecosystem that they believe have been lost or degraded and should be restored or preserved. Ecosystem characteristics and related comments included:

Abundance	Holistic
Balance	Integrity
Carrying capacity	Intensity
Complexity	Native
Connectivity	Persistent
Corridors	Productivity
Diversity	Self-healing
Evolution (change)	Self-maintaining
Extremes	Self-perpetuating
Fluctuations	Self-sustaining
Fragile	Spatial extent
Fragmentation	Stability
Frequency	Stress
Health	Rejuvenation
Heterogeneity	Resilient

"Re-established fish and wildlife diversity and abundance."

"Maximize the number, size and connections among wetland communities which will retain more water and enhance natural values."

"People's attitudes that our fragile environment will always be here."

"The pressure of population and its drain on water and other natural resources put stress on the environment."

Habitats

The variety of fish and wildlife habitats and vegetative communities in the south Florida ecosystem were noted in many of the public's concerns. Types of habitats, and comments on habitat problems, included:

Algae bloom	Hardwood areas	Seagrass beds
Beaches	Mangroves	Turtle grass
Coral reefs	Pinelands	Upland habitat
Estuaries	Prairies	Wetlands/marsh/swamps
Farmlands	Sand ridges	Willows
Hammocks	Sawgrass	

"Lack of ability or willingness to control development of wetlands."

"Whatever wetlands are left are being covered over by housing and business developments in Dade and Broward Counties. The halting of these projects could help to keep balance in the present system while cutting back on population growth."

"Waste of ground and surface water drained to tide, estuary damage from that drainage."

"Freshwater peak discharges are too large - we must have more storage and both cut the peak discharges and augment the low flows so natural systems can be reasonably stable and productive. Estuaries and Florida Bay are particularly susceptible."

"Dumping water to estuaries; channelized Kissimmee River; tightly regulated Lake Okeechobee."

Hydrologic and Other Physical Characteristics

Changes in the physical characteristics of the South Florida ecosystem were considered to be problems by many people. To many, changes in the structure and function of the ecosystem's hydrologic characteristics were the most critical problem areas. Structural changes included the addition of man made hydrologic features, such as "canals" and "levees", and the modification of the ecosystem's natural hydrologic features, including "aquifers", "bays", "beaches", "lakes", "ponds", and "rivers". Problems in hydrologic functions were indicated by many people, including problems with "water storage", "sheetflow", and "hydroperiod" (flooding, volume and timing of water):

"Artificially lowering Lake Okeechobee to enhance bird populations that should be nesting in the Everglades - thereby sacrificing the most natural storage area."

"The sheetflow of water needs to be reestablished on a large scale, in order to restore a natural volume and timing of freshwater to both estuaries and freshwater wetlands. The water should go out of the canals and onto the wetlands - and it should be done at the right time of year, in the right amounts. And it needs to be clean water. I think its important to get the Kissimmee River and Lake Okeechobee back into the system."

"The natural hydrology must be replicated. Some sheet flow is necessary. Restore hydroperiods. Lake levels in Lake Okeechobee must be regulated and preserve the littoral zones. Restoration of the old Kissimmee oxbows and overflow wetlands is needed."

"The water needs to be delivered at the right time of year, in the right amounts and be clean enough to not cause degradation of the natural system. Get the water out of the canals and into the marsh/wetlands."

Many people also described problems related to the release of water from Lake Okeechobee through the St. Lucie Canal and the Caloosahatchee River in a practice called "dumping water to tide":

"Problem: Drainage basin alteration. 300+ added square miles to St. Lucie Estuary by C-24, C-23 canals. Opportunity: Connect C-24, C-23 to Lake Okeechobee to save wasted discharges into river (ocean)."

"Don't forget the west coast of southwest Florida. Estero Bay is getting very polluted and the straightening of the Caloosahatchee has caused its problem. The spoil is covered with exotics."

Other concerns included "sedimentation", "silt", and "sea level rise". Other physical characteristics of the ecosystem are viewed as natural assets, including "climate", "weather" and "fire":

"Allow environmental fluctuations and extremes to occur as they would have in a natural system. Fire is necessary."

"Opportunities: Quality of life, warm waters, weather, etc. Many folk depend on a living from environment, i.e. scuba diving, fishing, etc., this is a smokeless (non-polluting) industry."

Different views about loss of soil in the Everglades Agricultural Area were expressed:

"The problem is that we are farming in areas we should not be in. Topsoil is disappearing at a rapid rate. Get farming out of the Everglades. The Everglades do not belong only to Floridians - they are unique and belong to the world and its people."

"The Science Sub-Group Report suffers from analytical and scientific weaknesses. For example, the analysis of soil subsidence in the EAA is misleading. Iowa, in the heart of America's prime farmland, has an average topsoil depth of eight inches. The average depth of muck in the EAA is four to five times that level. Moreover, as the muck becomes shallower, the rate of oxidation decreases. In fact, sugarcane, citrus, and other crops grown in the EAA can be grown successfully with no muck at all."

Fish and Wildlife Species

A variety of fish and wildlife species were recognized in the public's concerns. These included general comments about "animals", "birds", and "fish", as well as specific recognition of the following:

Flamingo	Bonefish	Alligator
Great egret	Dolphin	Black bear
Heron	Lobster	Blue indigo snake
Ibis	Oyster	Deer
Kite	Shrimp	Otter
Little blue heron	Snook	Streaked head turtle
Osprey	Sponge	
Roseate spoonbill	Stone Crab	
Scrub jay	Tarpon	
Stork		
Ducks		
Migratory birds	Benthic organisms	
Neotropical birds	Butterflies	
Song birds	Insects	
Wading birds		
Waterfowl		

"Jobs and properties vs. fish and alligators, which is more important?"

"Pond areas within the Park should be managed to supply water depth needed for wading birds."

"Problem is fish kills, mangrove die-off, shrimp population down, declining bird and fish population, hyper saline water, algae blooms."

Endangered Species

Many people expressed concern about the role of the South Florida ecosystem in maintaining healthy populations of endangered species, including the "eagle", "Florida panther" (the "cougar"), "gopher tortoise", "manatee", "snail kite", and "wood stork". Problems and opportunities are:

"Saving endangered species (cougar, manatee, etc.)"

"Lack of space for endangered species for own habitats."

Exotic and Pest Species

The problems associated with non-native - "exotic" - plant and animal species were recognized by many people. The effects of exotic plants were

particularly noted, including: "Australian pine" ("cassarina trees"), "Brazilian pepper" ("Florida holly"), "cattails", "eucalyptus trees", "melaleuca" ("paper trees"), and "milfoil".

"Clean up milfoil in Lake Okeechobee."

"Melaleuca trees were introduced by a government agency to dry up the Glades and did a good job of it and multiplied. Let's get rid of them. Cassarina trees and Brazilian pepper were allowed by the Park to take over. Let's get rid of them and the vacillating Park Service policies that promotes ruination of south Florida."

"I live in the Big Lake and the canals that used to be 25' to 35' deep are now 5' to 10' deep with sediment and silt. These canals are not maintained right. There are cattails growing in the middle of some of these canals."

"Mosquitoes" and "weevils" were noted as pest species.

Species Life Requirements

The South Florida ecosystem provides the resources and conditions that meet critical life needs of many fish and wildlife species. The public noted the importance of many species life requirements, including: "breeding", "feeding", "food chain", "forage", "grazing", "migration", "nursery", "prey-predator", "rookery", and "trophic levels". Concerns included:

"Wetlands not maintained properly. Not enough water to keep food chain healthy."

"Opportunity - Reestablish the groundwater head from Lake Okeechobee south and surface flows through Taylor Slough. Use the economic benefits of Florida Bay's nursery habitats to help justify the cost of changes to the Central and South Florida Project."

Natural Beauty

The aesthetic characteristics of the South Florida ecosystem's habitats and wildlife were valued by many as opportunities for appreciation and enjoyment:

"We have an opportunity to restore this beautiful wilderness to (or close to) its original beauty. Should we let this opportunity pass and let this unique ecosystem die a strangling death? What a waste it would be, for us, for our children, and for the future."

"We now have an opportunity to bind together and jointly work towards a solution for the people whose very lives depend on this area and for the beautiful wildlife and its habitat God has given us."

Success

Most of the public's ideas about what successful restoration of the South Florida ecosystem were broadly stated in terms of the ecosystem, large areas, and ecosystem characteristics:

"Reconnected Kissimmee River, Lake Okeechobee, WCAs, Everglades National Park, and Florida Bay; a healthy functioning ecosystem self-maintaining."

"That the system can function at a level that best provides for the quality of life of people as well as protecting historic resources."

"A smaller, reduced sized Everglades which resembles what it was on a larger scale. Maintain and expand Federal limitations on development."

"Maintain spacial complexity, diversity and productivity of Everglades plant and animal communities. Prevent loss of habitat due to water delivery decisions, invasion of exotic plants and animals, or contamination of the environment (mercury)."

"A natural system unrestrained by artificial constraints and barriers."

"Clean water, healthy plants, beauty."

"Healthy and biologically diverse ecosystem which supports native flora and fauna in substantial and sustainable numbers."

"Restore as much as possible natural connections between remaining wetlands."

"Fully restored ecosystem that is healthy and self-regulating with a minimum of human interference. All major communities and linkages are present."

"A rejuvenated Everglades system - from the Kissimmee River to Key West that functions as close to a natural system as possible, based on the best available knowledge."

Many people envisioned successful restoration in more specific terms that could be measured or experienced:

"Return of the black bear, Florida panther and a 90% increase in wading bird population."

"50 Florida panthers with no mercury; no more fish advisories in mercury."

"When the native plant and wildlife return in sufficient numbers so that we can remove them from the threatened and endangered list."

"The return of a clean river with the return of the thousands of ducks that passed through and the return of the tarpon and snook that filled the river."

"Indian River Lagoon dolphins regain their previous healthy status (i.e. no fungal diseases apparent any more)."

"Oysters as big as my hand in the St. Lucie Estuary, with stable bottom sediments throughout most of the river system."

"Being able to eat fresh fish again."

"Crystal clear water filled with fish, lobsters, shrimp and stone crabs. Osprey nests on almost every telephone pole. Roseate spoonbills flaming the skies. No algae on coral reefs."

Some people defined a specific historic condition as the goal of restoration:

"By seeing the Glades, Florida Bay and the reefs the way I remember them in the '60's and early '70's."

"Success would bring the Everglades back to at least the 40's or 50's level of bird life, natural systems flows through the Everglades into Florida Bay, the grassbeds if other things are done right will grow; clean healthy non-epiphytic grass to house the plant and animal life as before."

"The ecosystem should look as nearly like it did prior to the 20's."

"Restore lands and wildlife to 1900 state."

"Success would be an Everglades system that looked and functioned as it did 125 years ago, insofar as humanly possible to achieve."

"Success is an Everglades functioning as it did before human settlement, where little to nor human intervention is needed to keep the Everglades healthy."

Others rejected the idea of trying to restore an historic condition:

"With the technology we have today it is ridiculous to set south Florida back 100 years. And it is also economically stupid."

To many, any notion of restoration was not acceptable. Many people stated that they believe that the ecosystem is successfully recovering from past disturbances, and it should be left alone:

"You can't 'repeal' 100 years of 'progress' and advance of civilization into the area of south Florida. So we could improve the condition of the wilderness that's left available to be compatible with the ever increasing demands of additional population of humans by zoning undeveloped areas with a state clear policy and no Federal interference per the intention of the Constitution."

"Restoration not needed, just efforts to keep a good, clean water supply, clean air, and a good emergency flood control program."

"Forget it and leave well enough alone."

"I do not believe at this point anyone can restore the ecosystem - leave it alone."

"Leave it like it is now, I don't see anything wrong with it."

"Success would be having the State and Federal governments not spend one red cent on tampering any further on or with the ecosystem."

"Wildlife and land left untouched by the Corps."

Many people expressed particularly strong views about not interfering with the existing conditions on the Kissimmee River and in the Everglades Agricultural Area:

"Realize that short of a nuclear detonation 'habitat' cannot be destroyed. It can only be changed. Changed from dry to wet, wet to dry, etc. The Kissimmee River has changed. It was painful, but do not make it undergo this change again."

"The ecosystem has healed itself - with the help of nature - just as in man sores heal and leave scars. Since the river now is a sore and it has healed itself - why reopen the sore - leave well enough alone."

"To leave the Glades alone."

A final caution about successful restoration was:

"Before we try to restore everything, we have to keep in mind that the earth is ever evolving; we can't keep that from happening. So who's to say that what was done in the past didn't already extend the life of the Everglades and anything done now may bring its demise all that sooner."

WATER QUALITY AND OTHER ENVIRONMENTAL CONSIDERATIONS

Problems and Opportunities

In addition to the ecosystem concerns discussed in the previous section, the public also recognized problems and opportunities in terms of general environmental pollution, including air quality and solid waste, and water quality.

Environmental Pollution

Many people identified general environmental pollution concerns, citing both urban and agricultural sources:

"Problems: Pollution to the air, water, and soil and man's interference with the natural states of the surrounding environment."

"Pollution, overdevelopment, dumping, landfills."

"Pollution (agricultural runoff and industrial)."

"The cities pollute the ecosystems more than the farmers do."

"Serious pollution caused by unrestricted sugar cane and orange growers and cattle farmers."

"Problems - pollution (industry, farm, etc.)"

"Lack of pollution control in coastal areas."

"Poisoning of Everglades, animals, and humans (through crops) DDT, lead, etc. fertilizer."

Air quality and solid waste disposal concerns were occasionally mentioned:

"Industries such as maritime cause air pollution. Counties, municipalities contribute to this air pollution in that they operate fire trucks, garbage trucks, school buses that are not required to pass emissions."

APPENDIX B

**USING THE
LARGE GROUP RESPONSE TECHNIQUE
AT THE FOURTH NATIONAL
WATERSHED COALITION CONFERENCE**

This paper describes the use of the large group response exercise at the National Watershed Conference in May 1995.

Using The Large Group Response Technique at the Fourth National Watershed Coalition Conference

By Kenneth D. Orth
Institute for Water Resources
U.S. Army Corps of Engineers

PURPOSE

The National Watershed Coalition held its Fourth National Watershed Conference in Charleston, West Virginia on May 21-24, 1995. This paper discusses why and how the Coalition used the large group response technique at the Conference. The discussion is presented in some detail so that it may also serve as basic instructions for others who wish to use the technique.

FOURTH NATIONAL WATERSHED COALITION CONFERENCE

The National Watershed Coalition is an alliance of national, regional and state organizations and associations that have common water resource problems, a mutual interest in the small watershed program, and advocate using the watershed approach to resource management (NWC 1995a). The small watershed program is the Watershed Protection and Flood Prevention Program (Public Law 83-566) administered by the Natural Resources Conservation Service of the U.S. Department of Agriculture.

The theme of the Coalition's Fourth National Conference was "Opening the Toolbox: Strategies for Successful Watershed Management". The theme signified the Coalition's expanding focus on the use of several existing or proposed Federal authorities and all other tools available to potential users to accomplish local communities' goals. For the purposes of the Conference, the Coalition broadly defined "tools" to include individual Federal, state and local programs, technical disciplines, ecosystem planning, and other implementation approaches. The Conference was directed at local, state, tribal, regional, and Federal watershed, floodplain, and natural resources program managers and project sponsors (NWC 1995a, 1995b). About 440 people representing forty states, Puerto Rico and the District of Columbia registered at the Conference (NWC 1995c).

Kenneth D. Orth is a Community Planner with the Institute for Water Resources, U.S. Army Corps of Engineers, Casey Building, 7701 Telegraph Road, Alexandria, Virginia, 22315-3868. Mr. Orth was the Corps' liaison to the National Watershed Coalition; and, in concert with other Federal agency liaisons, assisted the Coalition in planning and conducting its Fourth National Watershed Conference.

The Conference covered four days of activities:

- Sunday, May 21 - Registration, and tours of regional water resource sites.
- Monday, May 22 - Plenary panel sessions by local, state and Federal officials.
- Tuesday, May 23 - Concurrent sessions with presentations by experts and leaders in various special topics.
- Wednesday, May 24 - Plenary work session involving all Conference participants.

LARGE GROUP RESPONSE TECHNIQUE

The large group response technique (Sanders and Orth 1994) is a means to elicit, display and summarize responses of a large group of people to a set of questions. It was developed and successfully used by the Corps of Engineers during ten public workshops in South Florida in December 1993; each workshop was attended by up to several hundred people. The technique consists of six basic steps:

1. Preparation.
2. Set-Up.
3. Questions-and-Responses.
4. Wall Walk.
5. Summary.
6. Analysis.

Steps 1 and 2 occur before the group meets; steps 3, 4 and 5 occur during the group's meeting; and step 6 occurs after the meeting. In the South Florida experiences, the process proved to be quick, inexpensive, and straightforward. It is largely self-recording, and produces both individuals' responses and group summary results by the close of the meeting.

WHY USE THE TECHNIQUE AT THE WATERSHED CONFERENCE?

In planning the Conference, the Coalition originally scheduled a plenary "work session" as a closing for the meeting. In this session, the Coalition envisioned dividing the expected 400-700 Conference participants into "small groups" that would discuss several questions of importance to the Coalition. Following their discussion meetings, each small group would report its results in a final Conference plenary meeting. A draft agenda had allotted 3 1/2 hours for this final "work session". The Coalition viewed this as a very important part of the Conference that would "provide direction from conference participants for finding some common ground for an integrated national watershed management program" (NWC 1995a).

In discussing with Coalition leaders how the proposed "work session" would, in practice, be handled, several observations were made. First, if the expected number of participants were divided into very large "small groups" with 20 people in each group, that would result in between 20 and 35 groups. This would require 20 to 35 of each of the following:

- Meeting areas (separate rooms or parts of larger rooms).
- Group leaders, and possibly facilitators and recorders.
- Sets of equipment and supplies (flip charts, markers, tape, etc.).

Other considerations included: the time and patience to complete up to 35 group presentations in the final plenary session; the extensive planning and management necessary to logistically succeed with so many groups; the potential for large total costs (meeting room rentals, facilitators, recorders, equipment, supplies); and the chance that at least some small groups would not be productive. It appeared that the management and supporting requirements for this approach to addressing the Coalition's questions could easily be overwhelming. While the traditional "small group" approach usually works well for a large group of up to about one hundred people, it may not be suitable for larger groups of several hundred people as expected at the Coalition's Conference.

As an alternative to the "small group" approach, the Coalition considered using the large group response technique. Using this technique to accomplish its goal for the final session would greatly reduce or eliminate many of the problems associated with breaking Conference participants into small groups. After hearing a brief presentation about the large group technique, the Coalition leadership agreed to use it as the method to address their questions during their Conference's closing session. Ms. P. Kay Whitlock, the Coalition's Secretary-Treasurer, was initially designated to moderate the session.

HOW THE TECHNIQUE WAS USED AT THE CONFERENCE

Once the decision had been made to proceed with the large group approach, the technique was implemented following the basic six steps that were previously listed.

Step 1 - Preparation. Several activities occurred before the Conference.

Review Meeting Site - In September 1994, Conference planners met in Charleston, West Virginia, to inspect the Conference facilities at the Charleston Convention Center. Conference plenary sessions were to be held in the Center's auditorium (seating for about 600), and the concurrent presentation sessions were to be held in several Center meeting rooms (seating for about 200 people each). After consulting with Center officials, the planning group agreed that the auditorium would be adequate for the question-and-response (step 3) and summary (step 5) parts of the large group session. Additionally, either of the two large lobby areas adjacent to the auditorium (upstairs and downstairs) were spacious enough for the "wall walk" (step 4) part of the session.

Prepare Meeting Questions - The Coalition's questions to be addressed during the large group session were initially developed at the September meeting. In keeping with the Conference theme, the questions were related to eliciting participants' ideas about watershed management tools. The questions were subsequently refined, and adopted at the final Conference planning meeting in January 1995. The final questions were:

#1 - TOOLS TO KEEP - What tools did you find that you think will continue to be useful tools for watershed planning and management over the next ten years?

#2 - TOOLS TO DROP - What tools did you find that you think are no longer useful for watershed planning and management over the next ten years?

#3 - TOOLS TO ADD - What tools did you **not** find, but you would like to add, or you feel we must add, to our watershed planning and management toolbox over the next ten years?"

Prepare Response Sheets - After the questions were defined, "response sheets" were printed as the recording instruments for participants to write their responses to the three questions. The response sheet consisted of a single sheet of yellow paper, with the front divided into three equal sections marked 1, 2 and 3, as shown in Appendix A. The one-third page size of each "answer box" defined the length (and, to some extent, the detail) of expected responses. Yellow paper was used so that the sheets would be easy to identify and collect.

Obtain Materials and Equipment - In addition to the response sheets, other needed materials and equipment were identified, and arrangements were made to obtain them. These items included:

- 3 flip charts per 100 people who participate in the exercise, with each chart consisting of a stand and a full pad of paper (32"X 27" newsprint). The charts would be placed to form the writing "walls" where Conference participants would write their most important responses to the three questions.

- 6 boxes of black magic markers (to write responses on the flip chart "walls").

- 3 empty cardboard boxes (to be used as response sheet collection boxes).

- 3 rolls of masking tape (to display fully covered flip chart pages on adjacent wall space).

- 3 signs, about 2 feet square, displaying the shorthand statements of the questions:

#1 - TOOLS TO KEEP
#2 - TOOLS TO DROP
#3 - TOOLS TO ADD

Prepare Presentation - An informal text for the initial question-and-response part of the session was written to assist the Coalition moderator. Slides (35 mm) were also prepared as visual aids for the presentation. The text and slides are in Appendix B. The text was intended as an informal guide to the key points and types of remarks that the moderator should present.

Step 2 - Set-Up. Formal Conference meetings began on Monday, May 22, with day-long plenary sessions; and continued with a series of concurrent technical sessions on Tuesday, May 23. After the Tuesday sessions, the facilities were prepared for the Wednesday morning large group session.

Set-up activities included placing a yellow response sheet on every seat in the auditorium where the question-and-response part of the exercise would be conducted, and setting up a bank of flip charts in each of three corners in the upstairs lobby. A separate bank of flip charts was set up for each of the three questions; each bank consisted of four charts butted together to form a small "wall" of writing paper. The three banks of charts were placed far apart around the lobby to reinforce the distinctions among the three questions, and minimize circulation congestion during the wall walk. A sign, stating the question for which responses were to be written, was placed at each respective "wall". A box of felt-tip marking pens, a roll of masking tape, and a response sheet collection box were placed on a small table located next to each bank of charts.

At this time, a change of plan was necessary because Ms. Whitlock was unavoidably unable to attend the Conference. Mr. John Peterson, a Coalition Program Specialist, graciously agreed to moderate the large group session in her absence.

Step 3 - Questions and Responses. Conference activities on Wednesday, May 24, were structured around the large group response exercise. With about 300 people remaining in attendance, the Wednesday agenda was:

8:00	Group Response Exercise
9:30	Plenary Session #7
11:00	Summary of Group Exercise Responses
11:45	Closing Plenary Session
12:00	Adjourn

After a brief introduction and explanation of the group response exercise's purpose and the procedure, Mr. Peterson presented the first question concerning watershed management tools to keep:

"First, in looking through our watershed tool box over the past few days, what tools did you find that you think will continue to be useful tools for watershed planning and management over the next ten years? Think about that, and list every useful tool you can think of on your yellow sheet in the block marked with the number one. We're going for quantity, so please keep your written answers brief but specific and descriptive. I'll give you about three minutes to complete block number one. Again, the question is: Please list the watershed planning and management tools that will continue to be useful over the next ten years."

Participants then took three minutes to write all of their responses in the first block of the yellow response sheet. This question-and-response format was similarly repeated for the second (tools to drop) and third (tools to add) questions. Mr. Peterson provided a final three minutes for the participants to individually select and circle their "most important" response to each of the three questions. This part of the exercise was complete by about

8:30. The informal text of the remarks made by Mr. Peterson during this part of the exercise is in Appendix B.

Step 4 - Wall Walk. Next, Mr. Peterson instructed the participants to move to the adjacent upstairs lobby and write their "most important" (circled) response to each of the three questions on the corresponding "walls" of paper. He also asked that everyone write their most important response for each question, even if someone else had already written the same idea or something similar, in order to see how many different important ideas there are, as well reveal ideas where many people had the same thought.

Within about five minutes, the participants had left the auditorium and were writing their responses at the three "walls" of flip charts in the lobby. Two staff members from the Coalition and agencies attended each bank of charts to ensure that participants received markers, to remove pages as they were filled, and otherwise provide assistance. Participants moved freely among the charts, initially standing in lines several people deep while waiting to write their responses. As the exercise progressed, people returned to the quickly completing displays to read the collective group ideas about the three questions. The "wall walk" (during which coffee and pastries were available) provided opportunities for participants to discuss their responses in an informal atmosphere.

After all of the participants had displayed their "most important" responses, the staff members at each "wall" of responses prepared a one-page (flip chart paper) summary of the results for their respective questions. The summaries, which are included in Appendix C, generally identified the most frequently listed responses. As the summaries were being prepared, the Conference participants finished their coffee break and reassembled in the auditorium for their final panel plenary session. During that time, Mr. Peterson visited each "wall" of responses to read the complete displays and discuss the summaries with the staff. The "wall walk" was complete by about 9:30, and the summaries were finished by about 10:00.

Step 5 - Summary. Following the conclusion of the last panel plenary session, Mr. Peterson presented the responses' summaries to the participants in the Conference's final plenary session. This part of the exercise included some discussion of the results with the audience, and lasted about 20 minutes.

Immediately after the Conference concluded at noon, the yellow response sheets and flip chart pages were collected for the Coalition's further study and analysis. The large group response exercise immediately provided the Coalition with three sets of documentation:

- 148 yellow response sheets (others were completed but not turned-in or collected), which contained individual participant's responses.
- 58 "wall walk" pages, which contained all of the "most important" responses from participants.
- 3 summary pages, which summarized all of the participants' "most important" responses.

Step 6 - Analysis. The National Watershed Coalition leadership and staff continued to review and discuss the large group exercise results in the weeks following the Conference. In the weeks immediately after the meeting, the Coalition used the results in testimony, position papers, presentations and responses to letters. In the longer-term, Mr. Peterson noted:

"[The results] will help the National Watershed Coalition chart its course for the next two years. Many of our Steering Committee members will also find the information useful in their day to day activities. I believe we got more of substance that is useful to us as a Coalition, than we did in previous conferences, only because of the way the exercise was structured. People actually enjoyed participating, and seeing their ideas used." (Peterson 1995)

OBSERVATIONS

The large group response technique successfully provided the National Watershed Coalition with a very good sense of the Conference participants' views on its three questions about watershed management tools. The group response exercise proved to be:

- Quick - Full participation by a group of about 300 people was completed and results were known and summarized in about two hours.
- Inexpensive - Group exercise costs were limited to flip charts, response sheets, and miscellaneous supplies; expenses for small group break-out rooms, facilitators and recorders are eliminated.
- Easy - The exercise was straightforward; equipment and materials are familiar, and readily obtained and used.
- Documented - Results were self-recorded on work sheets, flip chart pages, and summary pages.

The large group exercise was pioneered during the Corps' ten public workshops in South Florida in late 1993. With few exceptions, the exercise conducted at the Fourth National Watershed Conference was very similar to the South Florida sessions. A few comparisons of note are:

- The audience who participated in the Watershed Conference exercise was largely made up of senior professionals working in various public agencies across the nation, representing an estimated 60 centuries of professional experience. This is in contrast to the South Florida workshop audiences, which were not overwhelmingly made up of professionals and included members of the public from many backgrounds and interests from all walks of life. While the audiences were very different, the technique was successful with both.

- Mr. Peterson's skills in public speaking and group management, combined with

the straightforward nature of the exercise, resulted in a successful exercise even though Mr. Peterson assumed the moderator role on the day before the session. While minimal training in the technique was necessary, the moderator's skills were crucial ingredients in producing a successful exercise. The moderator of the South Florida meetings was similarly skilled in dealing with the public.

- During the Watershed Conference, the summaries of responses to the three questions were prepared by teams of Coalition members and Federal agency representatives. This mix of representation provided both inside and outside perspectives on individual's and the groups' responses. During the South Florida meetings, the response summaries were prepared by the Corps study team, and then verified through public discussion and comment during the summary part of the exercise.

ACKNOWLEDGEMENTS

I appreciate the support and faith of the National Watershed Coalition in using the large group response technique for an important part of the Fourth National Conference. Mr. Billy Wilson, Coalition Chairman, and Ms. P. Kay Whitlock, Coalition Secretary-Treasurer, were very supportive throughout the process. Mr. John Peterson and Mr. Jim Fisher, Coalition Program Specialists, handled the day-to-day work with the Federal liaisons, and were always willing to provide whatever was needed to ensure the best results. Mr. Peterson did an outstanding job of facilitating the large group exercise and significantly contributed to its success and the success of the Conference.

I also appreciate the support and many ideas provided by my colleagues in the Corps of Engineers. Mr. Mike Krouse, Chief, Technical Analysis and Research Division, was my immediate supervisor, and Mr. Kyle Schilling was the Director of the Institute for Water Resources.

REFERENCES

National Watershed Coalition. 1995a. "An Invitation to Attend the Fourth National Watershed Conference".

National Watershed Coalition. 1995b. "4th National Watershed Conference, 'Opening the Toolbox: Strategies for Successful Watershed Management', Program".

National Watershed Coalition. 1995c. Watershed News. (Volume 5, Issue 3, June).

Peterson, John. 1995. Personal communication, 28 July 1995.

Sanders, C. and K. Orth. 1994. "Everybody Gets to Write on the Walls: A Large Group Response Technique".

APPENDIX A

Response Sheet

NATIONAL WATERSHED COALITION

Fourth National Watershed Conference

Charleston, West Virginia

May 24, 1995 - Work Session

1

2

3

APPENDIX B

Moderator's Text and Slide Cues Large Group Response Exercise

Fourth National Watershed Conference
Charleston, West Virginia
Wednesday, May 24, 1995

SLIDE 1

For the past two days we've been looking through our watershed toolbox. We've heard about individual projects and broad programs; about traditional structural solutions and nonstructural approaches; about policies and regulations; about analytical procedures and management techniques. I hope that everyone found their favorite tools, and perhaps a few new ones that they can take home. Some of you may have been bewildered at what you found. Others I know have been pleasantly surprised.

What we'd like to do in the next hour or so is get your reaction to what you've found in our collective watershed toolbox. In order to do that, we'll use the yellow sheet that you all should have found on your seats when you entered this morning [*hold copy of sheet so that attendees can see it*]. Does everyone have a yellow sheet? [*distribute sheets to attendees who do not have copies*].

SLIDE 2

We'll be using these yellow sheets in a large group response exercise that will proceed through the four steps as shown in this slide. The entire exercise will be complete within an hour and a half, including a half-hour coffee break! But you'll have to start by doing some thinking for us.

SLIDE 3

We'd like to take the next few minutes to get your individual reactions to three key questions. There are no right or wrong answers here - but there are some very important opinions and ideas that we'd like to share and capture. Let's begin.

SLIDE 4

First, in looking through our watershed tool box over the past few days, what tools did you find that you think will continue to be useful tools for watershed planning and management over the next ten years? Think about that, and list every useful tool you can think of on your yellow sheet in the block marked with the number one. We're going for quantity, so please keep your written answers brief but specific and descriptive. I'll give you about three minutes to complete block number one. Again, the question is: Please list the watershed planning and management tools that will continue to be useful over the next ten years.

[after two minutes] You have one minute left.

[after one minute] Let's move to our second question.

SLIDE 5

When you looked in our toolbox, I know many of you found tools that you think have outlived their usefulness, or are broken beyond repair. So, in the number two block on your yellow sheet, I'd like you to list the tools that you found that you believe are no longer useful for watershed planning and management. Again, we're going for all your ideas, so please keep your answers short. You have three minutes to list your answers in block number two.

[after two minutes] You have one minute left.

[after one minute] Let's complete this with our final question.

SLIDE 6

While our toolbox - like all good toolboxes - is filled with many useful and fascinating instruments, we are still missing some very important tools. So, in the last block - marked number 3 - on your yellow sheet, please list the tools that you did not find, but you would like to add, or you feel we must add, them to our watershed planning and management toolbox over the next ten years. Again, short answers, and be creative with this one - don't hold back. This is your chance to share your good ideas. You have three minutes to list your answers in block number three.

[after two minutes] You have one minute left.

[after one minute] Thank you; that completes the first step in this exercise.

SLIDE 7

Now that each of you has a pretty good idea of what is, what shouldn't be, and what still needs to be in our watershed toolbox, let's take one more look at our individual answers to the three questions and see what's really important. What I'd like each of you to do is to review all of your answers to each question, and circle your most important response to each question. For example, in block number one, circle the watershed planning and management tool that will be the most useful and successful one over the next ten years. In block two, circle the least useful watershed tool - the tool most likely to fail if used over the next ten years. Finally, in block three, circle the most important tool that you believe must be added to our toolbox over the next ten years. I'll give you three minutes to make your decisions and circle your answers.

SLIDE 8

[after two minutes] You have one minute left.

[after one minute] Thank you. That completes the second step, and the hard part of this exercise is done. Now we can compare notes by doing what is called a "wall walk".

SLIDE 9

In order to do that, we've set up three sets of blank flip charts in the lobby - one set for each of our three questions. What I'd like you to do now is to go to the lobby and write your most important answers to the three questions - your circled answers - on the flip charts. Please write your most important idea for each question, even if someone else has already written the same idea or something similar. We want to see how many different important ideas there are, as well reveal ideas where many of you think the same thing.

We'll take about a half-hour for this - and combine it with your coffee break, but please get your answers on the flip charts before you start breaking. And, once you start getting your answers up, I'm sure you'll want to start looking over the group's responses and discuss them. After about half an hour, we'll move the completed sheets back in here, and present you with a summary of what we think you have collectively said. We can then spend a little time in discussion. We have staff folks at each of the flip charts to make sure you get a marker and help you if you need it. Let's proceed with getting our answers on the charts. Once your answers are up, please drop your yellow sheet in one of the collection boxes by the flip charts.

[Thirty minute break for recording answers. Each set of flip charts should be attended by one Coalition representative and one agency representative to provide markers, keep lines moving, replace completed pages, etc.]

[At the end of thirty minutes, one person assigned to each question (set of flip charts) will prepare a list of the results: top listed responses, signs of "conflict" (strengths of opposing responses), lack of agreement, most creative responses, etc. Lists will be given to the moderator to present to the conference; the completed flip charts pages will be moved from the lobby to the walls of the meeting room. Attendees are asked to reassemble.]

SLIDE 10

[Moderator will present results, followed by conference comments.]

Slides
Large Group Response Technique

SLIDE 1:

**Group Response
Exercise**

SLIDE 2:

Group Response Exercise

- **Three Questions**
- **Important Responses**
- **Wall Walk Display**
- **Summary**

SLIDE 3:

Group Response Exercise

- **Three Questions**
- **Important Responses**
- **Wall Walk Display**
- **Summary**

SLIDE 4:

#1 - Tools to Keep

What tools did you find that you think will continue to be useful tools for watershed planning and management over the next ten years?

SLIDE 5:

#2 - Tools to Drop

What tools did you find that you think are no longer useful for watershed planning and management over the next ten years?

SLIDE 6:

#3 - Tools to Add

What tools did you NOT find, but you would like to add, or you feel we must add, to our watershed planning and management toolbox over the next ten years?

SLIDE 7:

Group Response Exercise

- Three Questions
- Important Responses
- Wall Walk Display
- Summary

SLIDE 8:

Your single most important response to:

- #1 - Tools to Keep**
- #2 - Tools to Drop**
- #3 - Tools to Add**

SLIDE 9:

Group Response Exercise

- **Three Questions**
- **Important Responses**
- **Wall Walk Display**
- **Summary**

SLIDE 10:

Group Response Exercise

- **Three Questions**
- **Important Responses**
- **Wall Walk Display**
- **Summary**

APPENDIX C

Summaries of Responses to The Three Questions

Fourth National Watershed Conference
Charleston, West Virginia
Wednesday, May 24, 1995

Question 1 - Tools to Keep.

1. Federal involvement including some funding for watershed planning and implementation activities (adequate funding). More public involvement.
2. Development of partnerships on the local, state and Federal level, for leadership in development, funding, operations and management. Multiple objective planning.
3. Information and education activities.
4. Technology development such as Geographic Information Systems (GIS), etc.
5. Technical support from USDA's Natural Resources Conservation Service (formerly Soil Conservation Service) and other federal agencies in addressing watershed issues.

Question 2 - Tools to Drop.

1. No tool is "no longer useful". It is the way we use the tools that needs to change.
2. Over-zealous use of economic analysis (the Principles and Guidelines [P&G's] benefit/cost ratios in the National Economic Development account).
3. Single purpose or other very limited planning objectives.
4. Heavy handed, prescriptive government planning and regulation.
5. Over emphasis on large structural solutions.
6. Single discipline approach to problem solving.
7. Duplication of programs and agencies.

Question 3 - Tools to Add.

1. Multiple sources of funding for implementation activities, to include Federal, state, local and private.
2. Education and marketing tools. Having "technology" experts assume some responsibility.
3. Develop and keep well-trained, multi-disciplinary planning people who have some "people" skills.
4. Emphasis on ecosystem or total resource management principles, and environmental, non-monetary factors or impacts including social.
5. More trust between all the partners, trust and team building needs to be strengthened.

APPENDIX C

USING THE LARGE GROUP RESPONSE EXERCISE AT WATERSHED '96

This paper describes the use of the large group response exercise at the Watershed '96 conference in June 1996.

Using the Large Group Response Exercise at Watershed '96

**Kenneth D. Orth, Community Planner
U.S. Army Corps of Engineers
Institute for Water Resources
Alexandria, Virginia**

PURPOSE

This paper discusses the use of the large group response exercise at the Watershed '96 conference held in Baltimore, Maryland on June 8-12, 1996. With the theme of "moving ahead together", the purpose of Watershed '96 was to share watershed success stories, discuss challenges, and learn from other watershed experiences. It attracted about 1,800 people, and featured over 340 speakers and moderators in eighty technical sessions, twenty computer demonstrations, and fifty-seven exhibitors (WEF 1996a and 1996b, USEPA 1996).

This discussion is presented in some detail so that it may also serve as basic instructions for practitioners who may wish to use the large group response technique.

LARGE GROUP RESPONSE EXERCISE

The large group response exercise is a means to elicit, display and summarize responses of a large group of people to a set of questions. It consists of six basic activities:

- Pre-Exercise Preparation and Set-Up.
- Exercise Step 1 - Questions and Responses.
- Exercise Step 2 - "Most Important" Responses.
- Exercise Step 3 - Wall Walk.
- Exercise Step 4 - Summary.
- Post-Exercise Analysis.

The technique was developed and successfully used by the Corps of Engineers during public workshops concerning ecosystem restoration in South Florida in December 1993; each workshop was attended by up to several hundred people (Sanders and Orth 1994). The exercise was subsequently used at the National Watershed Coalition's Fourth National Watershed Conference (May 1995 in Charleston, West Virginia; with 440 registrants) and at the 54th Meeting of the Chief of Engineers Environmental Advisory Board (March 1996 in Reston, Virginia; with about 70 attendees) (NWC 1995, USACE 1996).

The previous experiences showed that the exercise was quick, inexpensive, and straightforward. It was largely self-recording, and produced both individuals' responses and summary group results by the close of each meeting.

HOW THE EXERCISE WAS USED AT WATERSHED '96

A call for papers for Watershed '96 was published in April 1995. In response, a proposal was submitted for a technical paper and presentation on experience with the large group response exercise and its application in watershed studies. When several members of the Watershed '96 Planning Committee (who had participated in some of the previous exercises) became aware of this proposal, they requested that an exercise be included in the conference rather than presented as a paper. The intent of conducting the exercise was primarily to demonstrate how it works. The demonstration would provide adequate information so that a participant could conduct an exercise in their own watershed study.

Once the decision had been made to proceed with the large group approach, the exercise was implemented following the six activities listed above.

Pre-Exercise Preparation and Set-Up.

The Watershed '96 large group response exercise required careful planning in the months before the conference. Pre-conference preparations and set-up activities included: scoping the conference and exercise, developing an exercise schedule, preparing the questions to be addressed and response sheets, reviewing the meeting site, selecting a moderator and preparing a presentation, enlisting help from a support team, obtaining necessary materials and equipment, and physically setting-up the facilities on the day of the exercise.

Scope the Conference and Exercise. The Watershed '96 Planning Committee met several times in early 1996 to plan conference activities, including the large group response exercise. The Committee provided several key assumptions and decisions that guided the exercise's development:

- Between 1,500 and 2,000 attendees were expected at Watershed '96. This had implications for the amount of exercise materials needed, the wall walk display area and time period needed to display "most important" responses, and the time needed to summarize responses.
- The conference agenda was very ambitious and rigorous, and only 25 minutes of agenda time could be allotted to the exercise.
- The exercise would include three questions.
- Volunteers from various agencies and groups would be available to set-up the exercise, monitor the wall walk, and summarize the responses.
- Given its past experience, the Corps would manage and conduct the exercise, including providing the exercise manager and moderator.

Develop Schedule. In view of both the expected number of attendees and the tight schedule, the conference agenda could not be configured to include the exercise in a single 60-90 minute time block (as had been done at the South Florida workshops) or even over the course of a single morning (as had been done at the National Watershed Coalition Conference). Therefore, the exercise had to be designed to minimize the actual agenda time spent on it, and the following schedule was developed:

- Exercise steps 1 and 2, in which participants write their responses to questions and select their "most important" responses, would be conducted at the conclusion of the plenary session on Tuesday morning, June 11. It was estimated that these steps could be completed within the allotted 25 minutes, and this part of the exercise would run from about 10:05 AM to 10:30 AM.

- Exercise step 3, in which participants post their "most important" responses on display boards ("wall walk"), would be conducted concurrently with the Tuesday morning and afternoon technical sessions, from about 10:30 AM to 5:30 PM when the conference closed for the day. This would give participants seven hours to display their responses, a not unreasonable amount of time in view of the assumption that up to 2,000 people could participate.

- Exercise step 4, in which a team summarizes the responses and reports the results to the participants, would be conducted on Tuesday evening (summarize responses) and during the Wednesday, June 12, plenary luncheon (report results). The summary was estimated to take about an hour and a half to complete with a small group of reviewers, and would run from about 5:30 PM to 7:00 PM. The summary results would take about five minutes to report during general luncheon remarks on Wednesday.

Prepare Questions. The heart of the large group response exercise is the set of questions for participants' responses. A long list of potential questions was submitted to the Planning Committee as examples that could be used at Watershed '96. At a February 1996 meeting, the Committee drafted and edited several statements that resulted in the following questions:

#1 - How do you recognize successful watershed management?

#2 - What are the obstacles to using a watershed approach?

#3 - During the next ten years, what should be done to improve watershed management?

Prepare Response Sheets. "Response sheets" were printed as the recording instruments for participants to write their responses to the three questions. The response sheet consisted of a single sheet of paper, with the front divided into three equal "answer blocks" marked 1, 2 and 3, as shown in Appendix A. Each block was also printed in a different pale color to facilitate the later transfer and display of participant responses (see below). Block 1 was colored yellow, block 2 was colored pink, and block 3 was colored blue. The one-third page size of each answer block defined the length (and, to some extent, the detail) of expected responses.

Review Site. In April 1996, the Planning Committee and others involved in the conference visited the Baltimore Convention Center to complete conference planning and inspect the conference facilities. The conference plan called for holding the plenary sessions in a large hall. The hall would have a stage at one end, and would be set with chairs for an audience of 2,000. This would be the setting for exercise steps 1, 2 and 4. Conference technical sessions would be conducted in smaller rooms located on an upper floor of the Convention Center. The session rooms were connected by a spacious walkway, and this open area was selected as the location for the wall walk display boards for exercise step 3.

Select Moderator and Prepare Presentation. Watershed '96 reflected an important commitment of the sponsoring agencies and others to the principles of watershed management. With this significance in mind, the Corps selected Dr. G. Edward Dickey, Chief of the Civil Works Planning Division in the Corps' Headquarters (and a member of the Watershed '96 Steering

Committee), to be the moderator for the Tuesday plenary session part of the exercise (steps 1 and 2).

A presentation text, with accompanying 35mm slides, was prepared to guide the moderator's explanation of the exercise process and the three watershed questions. The presentation was rehearsed about a month before the conference, and the materials were revised. The final text and slides are in Appendix B.

Enlist Support Team. A support team was assembled to assist with several exercise tasks:

- Three conference volunteers were enlisted to place response sheets on participants' chairs before 8:15 AM Tuesday when the hall opened for the day's plenary session.
- Monitors were needed to pass out self-stick notes and pencils, keep lines moving, and otherwise assist during the wall walk. Because monitors would be reading responses throughout the day, they were also assigned to the summary team (see next paragraph) to take advantage of their familiarity with the responses. Four volunteers from the Corps' local District Office in Baltimore (one for each display wall and one rotating monitor) were recruited for this job.
- Finally, a summary team was enlisted to review the posted responses and prepare a brief summary of the exercise results for the Wednesday luncheon. The Planning Committee developed an initial list of volunteers for this task. Additional volunteers were enlisted through personal contact up until the day of the exercise.

Obtain Materials and Equipment. The potential for 2,000 conference participants led to some changes in materials and equipment needed for the step 3 wall walk. Previous exercises (with up to about 500 people) used flip chart paper to record participants' "most important" responses during the wall walk. However, assuming (1) an average of six written responses would fit on each 27-inch by 32-inch flip chart page, (2) the exercise would use three questions, and (3) up to 2,000 people could participate, the Watershed '96 exercise had the potential to generate about 1,000 flip chart pages which would cover over 6,000 square feet of wall when displayed. This was not a reasonable approach.

After reviewing a number of display options, small self-stick notes and large display boards were selected for the wall walk display. Participants would be instructed to copy their "most important" responses from their response sheets onto the self-stick notes, and then post the notes on corresponding display boards. As a result, the following materials and equipment were obtained:

- Packages of yellow, pink and blue 3-inch by 5-inch self-stick notes (2,000 in each color). The note colors matched the similarly colored answer blocks on the response sheets (see above).
- Nine free-standing display boards. Each board was 4-feet high by 8-feet long, and was mounted in a stand that permitted easy movement. The boards would be placed in three groups of three boards each to form "walls" on which participants would place the self-stick notes with their "most important" responses. (Note: The boards delivered for the conference had a cloth surface which would not hold the self-stick notes. Newsprint paper (from a 4-foot wide by 75-foot long roll) was tacked on one side of each board to provide the surface needed for the self-stick notes.)
- Three tables and chairs. A table and chair would be placed at each of the three display board walls. Participants would use the table as a writing surface, and monitors would have a place to sit during the wall walk.

- Three boxes of sharpened pencils. A box of pencils would be available at each table for participants to use in copying their "most important" responses from their response sheets to the self-stick notes.

- Three rolls of transparent tape. Tape would be available at each table to fasten any notes that would not stick to the boards.

- Three empty cardboard boxes. A box to collect response sheets would be on each table.

- Three signs (and accompanying easel stands), about 2-feet square, displaying the shorthand statements of the questions:

#1 - RECOGNIZING SUCCESS

#2 - OBSTACLES

#3 - IMPROVEMENTS

Set-Up. Several tasks were completed on Tuesday morning before the exercise began. The exercise manager and three volunteers placed response sheets on the 2,000 chairs in the plenary hall. At the same time, the Convention Center staff assembled the wall walk display boards in the area outside the technical session rooms. A separate bank of boards was set-up for each of the three questions; each bank consisted of three boards butted together to form a display "wall". The walls were about fifty feet apart to reinforce the distinctions among the three questions, and minimize circulation congestion during the wall walk. A writing table, with a chair for each wall's monitor, was placed next to each wall. Once the walls, tables and chairs were in place, the additional materials were placed at each wall: question sign on an easel, self-stick notes, pencils, tape, and collection box. Information sheets on the large group response exercise (Appendix C) were also available at each wall's table. Finally, the exercise manager and moderator met for a last review of the presentation.

Exercise Step 1 - Questions and Responses.

With about 1,600 people remaining in attendance, the Tuesday opening plenary session included a keynote speaker, a panel discussion, and the large group response exercise. The panel concluded at about 10:15 and the large group response exercise began.

After a brief introduction and explanation of the exercise's purpose and the procedure, the moderator presented the audience with the first question concerning watershed issues:

"First, given your experience and knowledge about planning, managing and living in watersheds, how do you recognize successful watershed management? Think about that for a moment, and, in the yellow block marked number one on your response sheet, please list all the different ways that you use to measure or otherwise recognize successful watershed management. We're going for number of ideas, so please keep your written answers brief. I'll give you about two minutes to complete your list in block number one. Again, the question is: How do you recognize successful watershed management?"

Participants then took about two minutes to write all of their responses in the first yellow block of their response sheets (which they had found on their chairs). This question-and-response format was similarly repeated for the second (obstacles) and third (improvements) questions. The text of the moderator's instructions, including the full description of each question, is in Appendix B.

Exercise Step 2 - "Most Important" Responses.

The moderator provided a final two minutes for the participants to individually select and circle their "most important" response to each of the three questions, explaining:

"Now that you have given some thought to success, obstacles and the future of watershed management, I'd like you to take one more look at your answers to the three questions and see what's really important to you. I'd like each of you to review your answers to each question, and circle your most important response to each. For example, in block number one, circle the most important way that you measure successful watershed management. In block two, circle what you think is the biggest obstacle to using the watershed approach. Finally, in block three, circle the most important thing that you think needs to be done to improve watershed management over the next ten years."

In closing, the moderator described the step 3 wall walk. Participants would have the remainder of the official conference day (until 5:30 PM) to visit the display walls on the upper level, and display their "most important" (circled) response to each of the three questions on the corresponding walls. He also asked the participants to write their "most important" response for each question, even if someone else had already written the same idea or something similar. This was necessary in order to see how many different important ideas there were as well as to reveal how many people shared the same thoughts.

Together, exercise steps 1 and 2 and the instructions for the step 3 wall walk were complete by about 10:40 AM.

Exercise Step 3 - Wall Walk.

During the remainder of the conference day, participants visited the display boards and posted their "most important" responses to the three questions. One wall walk monitor attended each wall to ensure that participants received self-stick notes, properly posted their responses, and otherwise provided assistance. A number of participants visited the boards immediately after the plenary question-and-response part of the exercise and during lunch. Participation was slow during the afternoon's technical sessions, but picked up as the conference closed for the day. By the end of the day, about 200 responses had been posted for each of the three questions.

Exercise Step 4 - Summary.

At about 5:30 PM, nine members of the summary team assembled at the display boards. The team was divided into three groups, and each group was assigned a question. Group members read the "most important" responses to their assigned question and noted common response themes. Coincidentally, each question's 200 responses had been posted on only two of its three display boards. As a result, each question had an empty board which was used to rearrange and group the self-stick notes into the major categories of responses to each question. By 7:00 PM, each group's results had been compiled in a master summary list of the major categories of "most important" responses to each of the three questions. Each question's summary categories were listed generally in order of the number of responses included in it, with the first category generally having the most responses, the second category generally having the second most responses, and so forth.

The summary is included in Appendix D. Before departing, the team cleaned-up and arranged the final displays of responses for viewing during the next (and last) day of the conference.

The summary list was given to the conference Planning Committee early Wednesday morning. On that morning, the preconference continental breakfast was served in the large open space around the wall walk display boards. This attracted a crowd of up to about one hundred participants at a time to the displays. Most people spent several minutes reading the responses; many discussed the results; some even took notes of the posted ideas. Activity continued around the displays until mid-morning when the boards were taken down.

During the Wednesday luncheon, the summary of responses was read to about 500 remaining participants. There was no discussion of the results. Some people were again observed taking notes of the summary findings.

Post-Exercise Analysis.

The summary of responses was the final product of the large group response exercise at Watershed '96, and there was no intention of conducting any additional analyses. However, following the conference, a representative of the Conservation Technology Information Center's "Know Your Watershed" program took the response sheets and the posted "most important" responses for further analysis. These results were used by Know Your Watershed at a July 1996 meeting to develop joint watershed programs among the organization's members (Keppy 1996).

OBSERVATIONS

The Watershed '96 large group response exercise met the objective of providing a practical demonstration of the approach. Many participants were pleased with the ease and simplicity of the basic exercise, and expressed interest in using it in their own studies after the conference. Some observations on specific aspects of the Watershed '96 exercise are:

About 1,000 people participated in the question-and-response part of the exercise (plenary steps 1 and 2); about 200 people posted their most important responses during the wall walk (step 3). This 20 per cent wall walk participation rate was considerably below previous rates of about 67 per cent during the South Florida workshops and over 50 per cent at the National Watershed Coalition Conference. Possible reasons for the lower participation rate are:

- The display boards were somewhat hidden by a short Convention Center wall. Some people may not have seen the wall walk area.
- Participation may have increased if the display boards had been located near the coffee break stations, which were in the exhibition hall adjacent to the plenary session hall at some distance from the wall walk site. The neighboring locations of food and display boards at the previous National Watershed Coalition Conference seemed to support and enhance participation in the wall walk at that meeting.
- The wall walk lasted over seven hours. While this gave people ample time to participate at their convenience, it may have also given many people too much time. The immediate and

relatively brief (less than one hour) wall walks of previous exercises maintained the exercise focus and momentum which seemed to dissipate over the extended time at Watershed '96.

- Some people may have simply wanted to observe and learn the exercise process. Participation is an option in this case.

The summary team easily read and interpreted the 200 "most important" responses displayed during the wall walk. The team was creative in using empty boards to physically rearrange and organize responses to reveal the collective general themes. Team members were from a variety of agencies and groups, and quickly came together to complete their assignment.

Discussions of the wall walk results took place beginning during the preconference continental breakfast and extended through mid-Wednesday morning. A new aspect that had not been observed during previous exercises was people taking notes about the "most important" responses. When questioned, some notetakers said they had discovered good ideas that they wanted to take back to their watershed work at home.

ACKNOWLEDGEMENTS

The success of the Watershed '96 large group response exercise was built on the efforts of many people. Ed Dickey of the Corps' Headquarters was enthusiastic about the opportunity to approach a plenary session in a different way. Janet Pawlukiewicz (U.S. Environmental Protection Agency), Bill Hansen (Institute for Water Resources) and the other members of the conference Planning Committee provided support and guidance throughout the development and conduct of the exercise. Beth Bachur, Michele Gomez, Abbie Hopkins and Debby Nizer (all from the Corps' Baltimore District) served as supportive and patient wall walk monitors. They were joined by Janet Pawlukiewicz, Bill Hansen, Ridge Robinson (Institute for Water Resources), Sue Devries (Engineer Strategic Studies Center), Larry Babich (Natural Resources Conservation Service), John Peterson (National Watershed Coalition), and Blake Anderson (County Sanitation Districts of Orange County) on the summary team. Cyndi Thompson and Arlene Nurthern (Institute for Water Resources) were, as always, available to assist with any request, however odd, for supplies and other administrative assistance.

The help and many ideas provided by other colleagues in the Corps of Engineers is greatly appreciated. Mike Krouse, Chief, Technical Analysis and Research Division, was my immediate supervisor, and Kyle Schilling was the Director of the Institute for Water Resources.

REFERENCES

Keppy, K. 1996. Personal communication, July 22, 1996.

National Watershed Coalition. 1995. Proceedings, 4th National Watershed Conference, Opening the Toolbox: Strategies for Successful Watershed Management, May 21-24, 1995, Charleston, West Virginia.

Sanders, C. and K. Orth. 1994. "Everybody Gets to Write on the Walls: A Large Group Response Technique".

U.S. Army Corps of Engineers. 1996. Environmental Advisory Bulletin, Review of the U.S. Army Corps of Engineers Evaluation of Environmental Investments Research Program, Summary Report of the 54th Meeting, Chief of Engineers Environmental Advisory Board, March 12-14, 1996, Reston, Virginia.

U.S. Environmental Protection Agency. 1996. "Watershed '96: Moving Together, Baltimore, June 1996", in Watershed Events. Spring 1996.

Water Environment Federation (publisher). 1996a. Proceedings, Watershed '96, Moving Ahead Together, Technical Conference & Exposition. Baltimore, Maryland. June 1996.

Water Environment Federation (publisher). 1996b. Watershed '96: Moving Ahead Together, Technical Program.

**APPENDIX A
RESPONSE SHEET**

WATERSHED '96

Large Group Response Exercise

Baltimore, Maryland

June 1996

1

2

3

APPENDIX B MODERATOR'S TEXT AND SLIDE CUES

SLIDE 1 - TITLE

Thank you. I'm Edward Dickey, Chief of Planning for the U.S. Army Corps of Engineers Civil Works Program. It's good to see so many colleagues and friends together to discuss watersheds.

This morning, we're going to demonstrate a public involvement technique that our Jacksonville District developed for the Everglades Restoration study. It's called the large group response exercise, and we'll use it to tap into the vast experience and knowledge about watersheds that you have collectively brought to this Conference.

During the next twenty minutes or so, we're going to accomplish two things. First, we're going to show you how the large group response exercise works, and we hope that will be something you can take home and use in your watershed activities. Second, by using the technique, we're going to get your reaction to some tough and provocative questions about working with watersheds.

In order to do that, we'll use the response sheet - the piece of paper with the yellow, pink, and blue boxes on it - that you all should have received when you entered this morning.

[Hold copy of sheet so that attendees can see it].

Does everyone have a response sheet with the three colored boxes?

[Distribute sheets to attendees who do not have copies].

SLIDE 2 - FOUR STEP PROCESS

We'll be using these response sheets in a large group response exercise that will follow the four steps as shown in this slide. We'll complete the first two steps in the next few minutes. The step 3 wall walk will be done at your convenience throughout this afternoon. And we'll get a final summary tomorrow. But right now, you'll have to start by doing some thinking for us.

SLIDE 3 - THREE QUESTIONS

We'd like to take the next few minutes to get your individual reactions to three key questions. There are no right or wrong answers here - but there are some very important opinions and ideas that we'd like to have you share and capture. Let's begin.

SLIDE 4 - QUESTION #1 - RECOGNIZING SUCCESS

First, given your experience and knowledge about planning, managing and living in watersheds, how do you recognize successful watershed management? Think about that for a moment, and, in the yellow block marked number one on your response sheet, please list all the different ways that you use to measure or otherwise recognize successful watershed management. We're going for number of ideas, so please keep your written answers brief. I'll give you about two minutes to

complete your list in block number one. Again, the question is: How do you recognize successful watershed management?

[after one and one-half minutes] You have one-half minute left.

[after one-half minute] Let's move to our second question.

SLIDE 5 - QUESTION #2 - OBSTACLES

In addition to successes, you have probably also run into some things that stand in the way of good watershed management. So, in the number two pink block on your response sheet, I'd like you to list the things what you believe are obstacles to using a watershed management approach. Again, we're going for all your ideas, so please keep your answers short. You have two minutes to list your answers in block number two, and, again, the question is: What are the obstacles to using a watershed approach?

[after one and one-half minutes] You have one-half minute left.

[after one-half minute] Let's complete this step with our final question.

SLIDE 6 - QUESTION #3 - IMPROVEMENTS

Each of you probably has some expectations about what is likely to occur over the next ten years. So, in the last blue block - marked number 3 on your response sheet - please list your ideas about what should be done to improve watershed management between now and the year 2006. Again, short answers, and be creative with this one - don't hold back. This is your chance to share your good ideas for the future. Please take the next two minutes to list your answers in block number three to the question: During the next ten years, what should be done to improve watershed management?

[after one and one-half minutes] You have one-half minute left.

[after one-half minute] Thank you; that completes the first step in this exercise.

SLIDE 7 - IMPORTANT RESPONSES

Now that you have given some thought to success, obstacles and the future of watershed management, I'd like you to take one more look at your answers to the three questions and see what's really important to you. I'd like each of you to review your answers to each question, and circle your most important response to each. For example, in block number one, circle the most important way that you measure successful watershed management. In block two, circle what you think is the biggest obstacle to using the watershed approach. Finally, in block three, circle the most important thing that you think needs to be done to improve watershed management over the next ten years. I'll give you two minutes to make your decisions and circle your answers.

SLIDE 8 - LIST OF THREE QUESTIONS

[after one and one-half minutes] You have one-half minute left.

[after one-half minute] Thank you. That completes the second step, and the hardest part of this exercise is done. Now we can compare notes by doing what we have nicknamed the "wall walk".

SLIDE 9 - WALL WALK

In order to do that, we've set up three large sheets - actually walls - of blank paper in the lobby - one wall of paper for each of our three questions. Sometime between now and five-thirty this afternoon when today's sessions end, I'd like you to go to the third floor area just outside the concurrent session rooms and write your most important answers to the three questions - your circled answers - on color-coded post-it notes, and stick the notes on the corresponding wall of paper. Transfer your circled idea in yellow block number one - that is the most important way that you measure successful watershed management - to a yellow post-it note and stick it up on wall number one. Do the same thing for your circled responses in pink block number two and blue block number three. The different colored post-it notes are located near each wall, and a staff member is at each wall to help you if you need assistance.

Please keep in mind one very important rule about the wall walk, and that is that you should put up your most important idea for EACH of the three questions, even if someone else has already written the same idea or something similar. We want to see how many different important ideas there are, and how many of you were thinking the same thing.

Please feel free to start at any wall, and complete your wall walk anytime at your convenience between now and five-thirty this afternoon.

SLIDE 10 - SUMMARY

Beginning at five-thirty we'll prepare summaries of what you have collectively said on the three walls, so please post your responses before then. We'll report the summaries of the three questions' responses during tomorrow's closing session.

SLIDE 11 - TITLE

I think that once answers begin to be posted, you'll want to start looking over the group's responses and perhaps discuss some of the ideas that you see. We've had some lively wall walk discussions during past exercises - let's see what happens today.

If you have questions, please speak with the staff folks who are stationed at each of the paper walls.

Thank you.

SLIDES

SLIDES 1 AND 11:

LARGE GROUP RESPONSE EXERCISE

SLIDE 2:

LARGE GROUP RESPONSE EXERCISE

- Three Questions
- Important Responses
- Wall Walk Display
- Summary

SLIDE 3:

LARGE GROUP RESPONSE EXERCISE

- **THREE QUESTIONS**
- Important Responses
- Wall Walk Display
- Summary

SLIDE 4:

#1 - RECOGNIZING SUCCESS

How do you recognize successful watershed management?

SLIDE 5:

#2 - OBSTACLES

What are the obstacles to using a watershed approach?

SLIDE 6:

#3 - IMPROVEMENTS

During the next ten years, what should be done to improve watershed management?

SLIDE 7:

LARGE GROUP RESPONSE EXERCISE

- Three Questions
- **IMPORTANT RESOURCES**
- Wall Walk Display
- Summary

SLIDE 8:

Your single most important response to:

#1 - Recognizing Success

#2 - Obstacles

#3 - Improvements

SLIDE 9:

LARGE GROUP RESPONSE EXERCISE

- Three Questions
- Important Responses
- **WALL WALK DISPLAY**
- Summary

SLIDE 10:

LARGE GROUP RESPONSE EXERCISE

- Three Questions
- Important Responses
- Wall Walk Display
- **SUMMARY**

APPENDIX C INFORMATION SHEET

LARGE GROUP RESPONSE EXERCISE

The large group response exercise is a means to quickly elicit, display and summarize responses of a large group of people to a set of questions. It has been successfully used in public meetings and conferences with groups of up to several hundred people.

PROCEDURE. The activities involved in conducting a large group response exercise are:

- **Pre-Exercise Preparation and Set-Up.** The heart of the large group response exercise is a set of questions related to the purpose or theme of the meeting. Typically, three questions are used for an exercise. The questions should be carefully framed before the exercise. Questions from a recent exercise were:

1. What are the significant resources in the study area?
2. What are the problems and opportunities in the study area ecosystem?
3. How would you recognize successful ecosystem restoration in the study area?

Other pre-exercise activities include preparing a response sheet for recording answers (with a designated answer block for each question), preparing a moderator's script and visual aids for exercise presentation, and visiting the meeting site.

Two set-up tasks are required on the day of the exercise. First, banks of flip charts on stands are set up, with one bank of charts dedicated to each of the selected questions. Each bank is usually three or more charts wide, and forms a "wall" of paper. The "walls" are put in separate locations in the meeting room or in a nearby room. Several marking pens and a collection box (for completed response sheets) are placed at each "wall". Second, if prepared in advance, response sheets are distributed to exercise participants. It may also be necessary to provide pens or pencils, and a writing surface (book, pad of paper, etc.).

- **Exercise Step 1 - Questions and Responses.** A moderator introduces the exercise, explaining its purpose and the procedure to be followed. The moderator explains the first question, and then allows participants three minutes to write all of their responses in the first block of the response sheet. This question-and-response format will be repeated for the remaining questions.

- **Exercise Step 2 - Most Important Responses.** The moderator provides participants with a final three minutes to individually review their responses, and to select and mark (by circling or checking) their "most important" response to each question.

- **Exercise Step 3 - Wall Walk.** Participants visit each of the flip chart "walls" of paper to display their "most important" responses. Each "wall" should be attended by an assistant to help participants, move completed sheets of paper to nearby walls, and

summarize responses. When all of the participants have displayed their "most important" responses, the moderator visits each "wall", reviews the responses with the assistant, and notes a few key points that summarize the results.

- **Exercise Step 4 - Summary.** When the participants have reassembled, the moderator presents the summary of the responses to each of the questions. Participants may wish to discuss the results.

- **Post-Exercise Analysis.** Further analysis after the exercise can range from simply reading the response sheets to be fully informed about participants' ideas, to key word and content analyses of the responses.

TIME. The four exercise steps that are conducted during the meeting can be completed in about 45-90 minutes.

MATERIALS AND ROOM. Materials needed to conduct a large group response exercise usually include: flip charts (pads of paper and stands), markers, tape (or pins), response sheets, pens or pencils, and signs. Other materials can be used to fit special exercise needs. The exercise meeting room should have writing surfaces (tables, or participants' pads, books, etc.), wall space suitable for the display of completed flip chart pages, and adequate space for circulation during the wall walk.

BENEFITS. The large group response technique is:

- **Quick.** Full participation by a large group can be completed and results are known in about one hour.

- **Inexpensive.** Costs can be limited to flip charts and work sheets; expenses for separate break-out rooms and small group facilitators and recorders are minimized or eliminated.

- **Easy.** The steps are straightforward; equipment and materials are familiar, readily available, and not readily flawed.

- **Documented.** Results are immediately self-recorded on response sheets, flip chart pages, and summary notes.

NEED MORE INFORMATION? If you'd like more information about the large group response exercise, contact:

Ken Orth
Institute for Water Resources
U.S. Army Corps of Engineers
7701 Telegraph Road
Alexandria, Virginia 22315-3868
703-428-6054 voice, 703-428-8171 fax
kenneth.orth@inet.hq.usace.army.mil

APPENDIX D

SUMMARY OF RESPONSES

Large Group Response Exercise
Watershed '96
Baltimore, Maryland
June 1996

QUESTION #1 - How do you recognize successful watershed management?

1. By realizing environmental results, including water quality improvements, increased biodiversity, and healthy ecosystems (seeing dragonflies!).
2. By experiencing broad community involvement, buy-in and participation.
3. By having adequate communication and education about watershed issues.
4. By achieving a balance between environmental quality and economic health.
5. By having good assessment, measurement and monitoring techniques.
6. Promises made are promises kept - implement!

QUESTION #2 - What are the obstacles to using a watershed approach?

1. Jurisdictional obstacles.
2. Lack of direction.
3. Lack of education and awareness.
4. Lack of money - who benefits is not the same as who pays.
5. Communication problems.
6. Lack of tools and processes.
7. Disagreement about the role of regulation - To regulate or not to regulate?
8. Other responses.

QUESTION #3 - During the next ten years, what should be done to improve watershed management?

1. Provide more education of the public, agencies and professionals.
2. Increase funding and incentives, including tax incentives and use of a watershed approach.
3. Reorganize and plan on a watershed basis.
4. Promote partnerships.
5. Use regulatory tools with opportunities for flexibility.
6. Improve science, tools, data and business processes.
7. Improve leadership through vision, goals and problem solving.
8. Other responses.

APPENDIX D

SAMPLE QUESTIONS

SAMPLE QUESTIONS

The large group response exercise is driven by a set of thought-provoking questions. The following list includes questions that have been used, or considered for use, in various group exercises. If you are developing questions for a large group response exercise, these samples may be a helpful place to start.

Everglades Public Workshops (December 1993). The three questions used in the first round of public workshops were:

#1 - "What are the important resources in the South Florida ecosystem?"

#2 - "What do you think are the problems and opportunities in the ecosystem?"

#3 - "How will you recognize successful restoration of the ecosystem?"

National Watershed Coalition Conference (May 1995). The following questions were used in the conference exercise:

"For the past two days we've been looking through our watershed toolbox. We've heard about individual projects and broad programs; about traditional structural solutions and nonstructural approaches; about policies and regulations; about analytical procedures and management techniques. Let's reflect on what we've found in that toolbox, and address the following questions:

#1 - "What tools did you find that you think will continue to be useful tools for watershed planning and management over the next ten years? "

#2 - "What tools did you find that you think are no longer useful for watershed planning and management over the next ten years?"

#3 - "What tools did you **not** find, but you would like to add, or you feel we must add, to our watershed planning and management toolbox over the next ten years?"

Watershed '96 (June 1996). The following questions were used at this conference exercise:

#1 - "How do you recognize successful watershed management?"

#2 - "What are the obstacles to using a watershed approach?"

#3 - "During the next ten years, what should be done to improve watershed management?"

CorpsQuest (August 1988). This was a small group exercise to develop scenarios of future conditions; the questions used were:

#1 - "What is the worst possible... [future]?"

#2 - "What is the best possible... [future]?"

#3 - "What is the most likely... [future]?"

Study Managers' Workshops (1987-1988). Many of the following questions were used during brainstorming exercises at five workshops with Corps' study managers:

Why do studies go wrong?

What are the characteristics of a good study manager?

What are the worst problems of a study manager?

What are the most important duties of a study manager?

I wish I could change...

What are the best tools for study management?

The worst thing a study manager can do is...

What do planners do exceptionally well?

How can a study manager get the job done?

What should be included in a study manager's performance standards?

What needs to be fixed?

What are the biggest challenges facing the planning program,?

What are the most important rules for managing a planning program?

When hiring a planning Chief, a District Commander should look for...

Thirty years from now, the Corps planning program will...

Thirty years from now, a study manager will...

The most satisfying [rewarding] thing about being a study manager is...

The most frustrating thing about being a study manager is...

What one rule ["The alphabet is your friend."] would you like to pass on to new planners?

The one lesson-learned that you would like to pass along to new planners is...

I want to tell headquarters...
If I could reorganize the Corps I would...
The Corps needs...
The Corps can live without...
A study manager's worst nightmare is...
What can we do to keep good planners?
Management can help me by...

Chief of Engineers' Environmental Advisory Board (EAB), 25th Anniversary Meeting (April 1995). After reviewing new tools developed through a Corps' research program, meeting participants responded to the following questions:

#1 - "USEFUL TOOLS - Which tools will be most helpful and useful to field practitioners?"

#2 - "OBSTACLES - What, if anything, stands in the way of using these tools?"

#3 - "ADDITIONAL TOOLS - What additional tools or approaches are needed?"

The following questions were considered but were not used in the EAB exercise:

Questions about the EAB:

What has been the EAB's top achievement?

What has been the EAB's top failure?

What is the most important contribution that the EAB can make to the Corps in the next ten years?

Questions about the history of the Corps' environmental program:

In what area of the Corps environmental program has the EAB seen the most progress?

In what area of the Corps environmental program has the EAB seen the least progress?

What's the Corps' "best" environmental project or activity - what makes it the best?

What's the Corps' "worst" environmental project or activity - what makes it the worst?

Questions about the future of the Corps' environmental program:

In the next ten years, what single thing should the Corps stop doing in its environmental program?

In the next ten years, what single thing should the Corps continue to do in its environmental program?

In the next ten years, what single thing should the Corps start doing in its environmental program that it is not doing now?

Ten years from now, what three words will best describe the Corps environmental program?

Ten years from now, what change in the Corps environmental program would come as the greatest surprise to you?

Planning Chief's Conference (June 1997). The following questions were used in this conference exercise:

#1 - "Over the next five years what should we start doing in our Planning Program that we are not doing now?"

#2 - "Over the next five years what can we do to keep good planners?"

#3 - "Five years from now, what key words will best describe the Corps' Planning Program?"

The following questions were considered but were not used at the Planning Chief's conference:

How would you recognize successful watershed planning?

What are the obstacles to successful watershed planning in the Corps?

During the next five years, what can we do to improve watershed planning in the Corps?

In the next five years, what single thing should we stop doing in our Planning Program?

In the next five years, what single thing should we work very hard to do better in our Program?

If, in the year 2007, you looked back over the past ten years, what change in the Corps' Planning Program would have been the biggest surprise to you?

What do planners do exceptionally well?

What are the most important rules for managing a Planning Program?

What should be included in every planners' [Planning Chiefs'] performance standards?

When hiring a new Planning Chief, a Commander should look for what three qualities?

The most satisfying [rewarding] thing about being a planner [Planning Chief] is....

What can we do to better help each other?

What bits of planning wisdom would you like to pass on to a new planner?

What lessons-learned would you like to pass on to a new planner?

What am I doing right?

What am I doing wrong?

What do you need from me?

What's the most important advice you can offer me?

I can help you by doing.....

Restoration Forum for River Corridors and Wetlands (September 1997). The following questions were use at this conference exercise:

#1 - "SUCCESS FACTORS - What are the factors that led to success in restoration projects and programs?"

#2 - "SMALL AND LARGE SCALE CONNECTIONS - What is needed to better connect small scale, community level restoration projects with landscape, large scale restoration efforts?"

#3 - "NEXT STEPS - What are the next steps to advance a restoration agenda in the United States?"

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
<small>Public reporting burden for this information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Service, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204 Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.</small>				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE November 1998	3. REPORT TYPE AND DATES COVERED Final	
4. TITLE AND SUBTITLE Handbook for the Large Group Response Exercise			5. FUNDING NUMBERS	
6. AUTHOR(S) Kenneth Orth and Carol Sanders				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Corps of Engineers Water Resources Support Center Institute for Water Resources Casey Building 7701 Telegraph Road Alexandria, VA 22315-3868			8. PERFORMING ORGANIZATION REPORT NUMBER IWR Report 98-R-4	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Corps of Engineers Headquarters, Directorate of Civil Works, Planning Division Pulaski Building 20 Massachusetts Avenue, NW Washington, DC 20314-1000			10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES Available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, (703) 487-4650.				
12a. DISTRIBUTION/ AVAILABILITY STATEMENT Approved for public release; distribution unlimited.			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) The large group response exercise is a technique for public involvement. It is a step-by-step way to quickly elicit, display and summarize responses of a large group of people to a set of questions. Exercise steps are: (1) posing and responding to a set of questions, (2) identifying most important responses, (3) "wall walk" display of most important responses, and (4) summary, report and discussion of results. The exercise has been successfully used in public meetings and conferences with groups of up to several hundred people. The exercise is quick, easy and inexpensive to use, fosters public participation, and is self-documenting.				
14. SUBJECT TERMS large group response exercise, public involvement, public meetings, workshops			15. NUMBER OF PAGES 148	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT Unclassified	